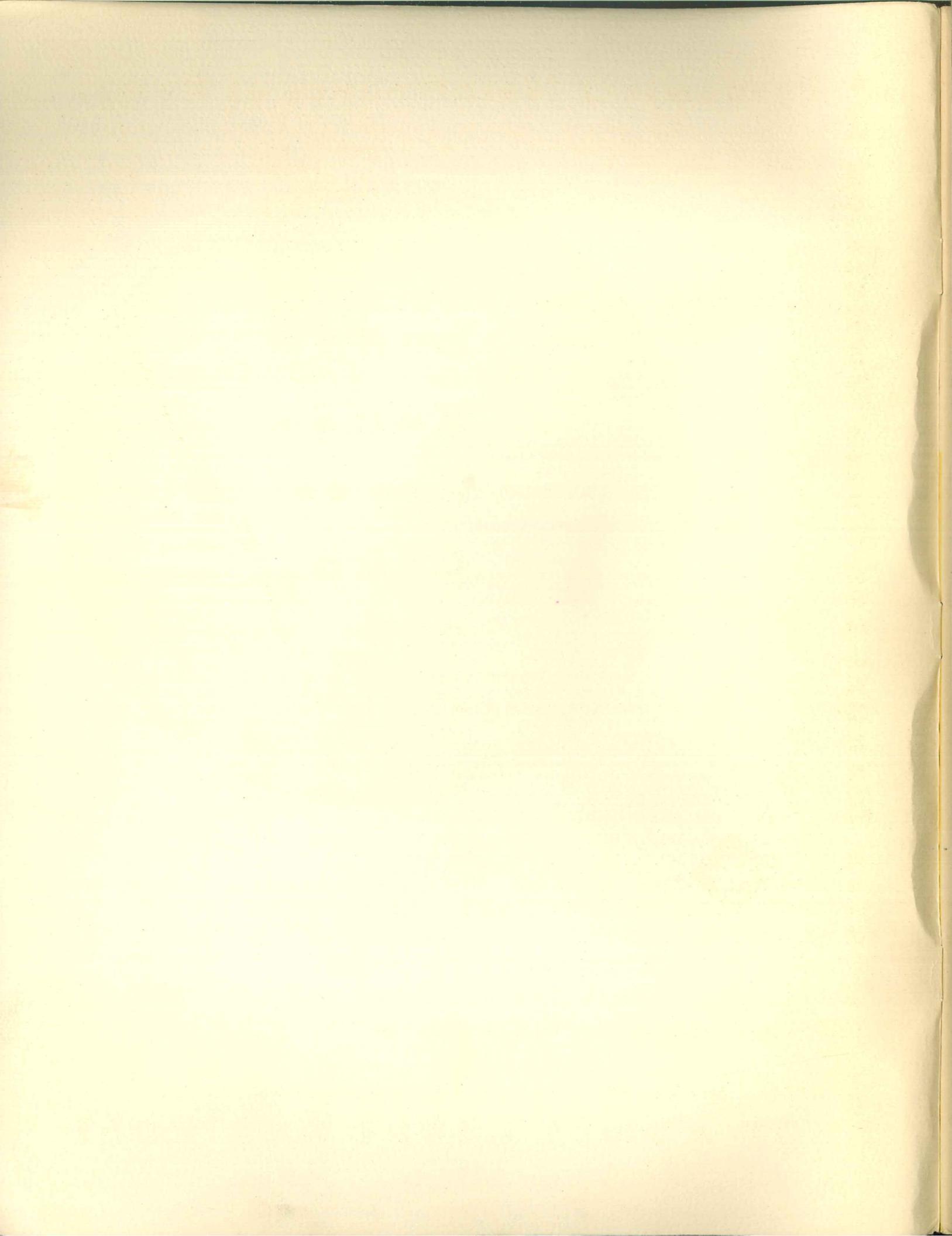




GOOD HOMES NEVER GROW OLD



Economical Maintenance of Homes

GOOD
HOMES
NEVER
GROW
OLD



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G O O D H O M E S N E V E R G R O W O L D

As you walk down a residential street in any town or city you will note two kinds of homes. You will observe the extremely well kept home. The house, as neat as a pin, is in a setting just as well cared for. Right next door perhaps, is a house with a rundown appearance. It may not be falling apart exactly, or in a bad state of disrepair. The porch sags a little; a board here and there is loose; a downspout section is missing; the roofing has curled.

Frequently you may see whole blocks or neighborhoods of these semi-neglected homes. In point of years some of them may not be so very old, either.

The treatment and care of a home is a problem and obligation that every family assumes when it builds or buys. There are two ways to approach the problem. One is to forestall rapid depreciation and costly repairs by continuous care, upkeep, and maintenance. The other is that of letting matters take care of themselves, and when the house becomes unlivable or unsightly, to move out.

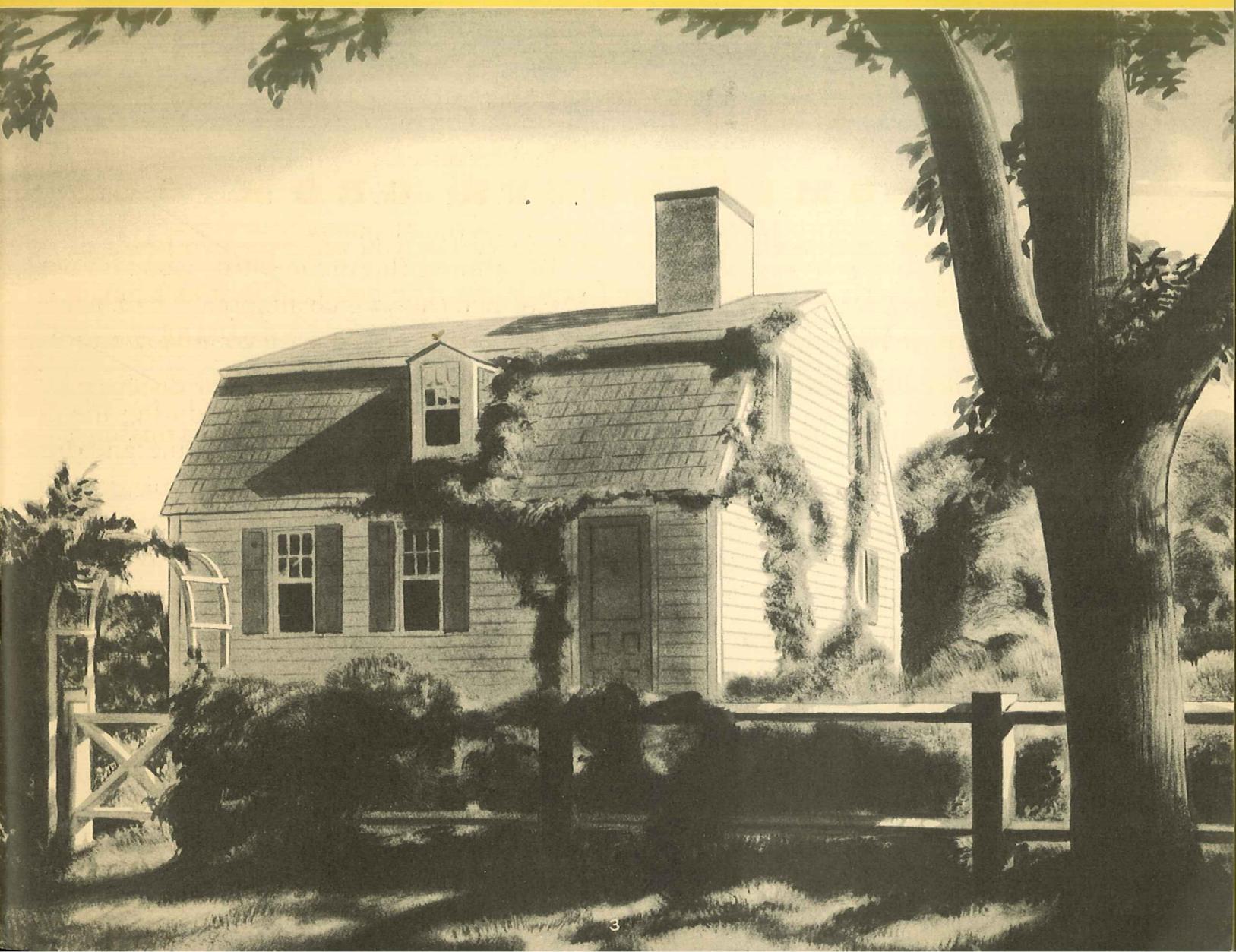
In the past, the problem has been considered largely from the personal angle with

too little regard for neighborhood and community pride. But this attitude on the part of individual owners is changing since neglect, spreading through an entire neighborhood, has been found to result in depreciation of all nearby property. It is becoming widely apparent, too, that running away from neglected areas and building up new ones increases rather than decreases the public tax burden.

Out of this changing attitude will come a new philosophy of property maintenance which will benefit not only the owner who practices it but also the entire community.

This book is written to foster better home maintenance; to show how it can be accomplished; how it can save money. It is based on the premise that good houses never grow old.

The house illustrated below was built in Rockport, Massachusetts, several decades before the Declaration of Independence was signed. Today it is just as livable as it is charming and beautiful. Like hundreds of other well built Colonial homes, it is sterling proof that good homes need never grow old.



KEEPING HOMES *New*

● The home pictured on the preceding page is commonly referred to as the "Old Tarr Homestead." It was built about 1750, at least six generations back. From the standpoint of age as measured in years it is *old*, but when judged by its usefulness and desirability it is extremely *new*.

Its style and design are as fresh today as during Colonial times. Architecturally it has been the inspiration for many homes erected in the twentieth century.

To its present-day occupants this home is as inviting and livable as it has been for their predecessors during the past 180 years.

Those who have traveled hundreds of miles to be thrilled by this and other magnificent early New England wood homes see nothing about the Tarr Homestead that reveals its great age.

If one happens to know the history of this residence, he may say that it was "restored" in 1931. That is true. Also, it was "modernized" with a number of twentieth century conveniences. And during its long life a succession of occupants have heard the occasional ring of the hammer and the swish of the paint brush as needed repairs were made and protective coatings of paint added.

It is an accepted fact that the home which

is sound in architectural lines, plan, materials, and construction can be kept perpetually new. True, it will require some care, some repair work, and occasional painting, but these will be negligible and moderate in cost if attended to in time.

Homes should be given this attention because they afford us adequate shelter, one of man's three primary needs. In meeting this need, homes can be made to endure, without fear that they will become obsolete.

Unlike the lofty skyscraper whose span of life is less than that of a human being, the home's term of usefulness may be endless. It need not yield to the ravages of time, or usage, or the elements.

We observe this in the sturdy wood homes of Colonial days, which almost alone of man's efforts of that period have come down to us virtually unmarked by the years.

These homes possess the enduring life of the forests of mighty Cedar, Pine and Fir giants, many of them in vigorous growth before the time of Columbus.

House repairs do cost money. When the bank account is low, even a very small repair bill assumes sizable proportions to the mind. This is one reason why so many owners postpone little jobs in the hope of saving money. But to neglect a house is a losing rather than a paying proposition.

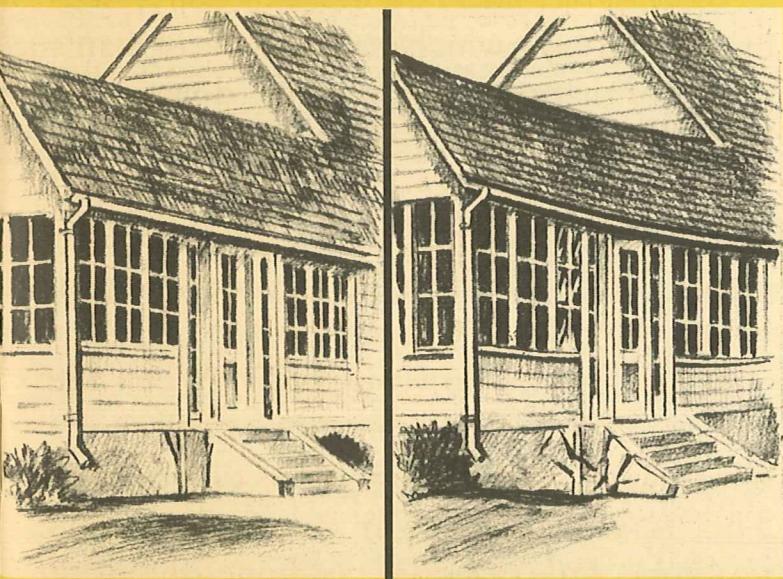
Little repairs soon grow into big ones. The loose shingle that needed the driving

DOES IT PAY TO KEEP A HOUSE IN GOOD CONDITION?

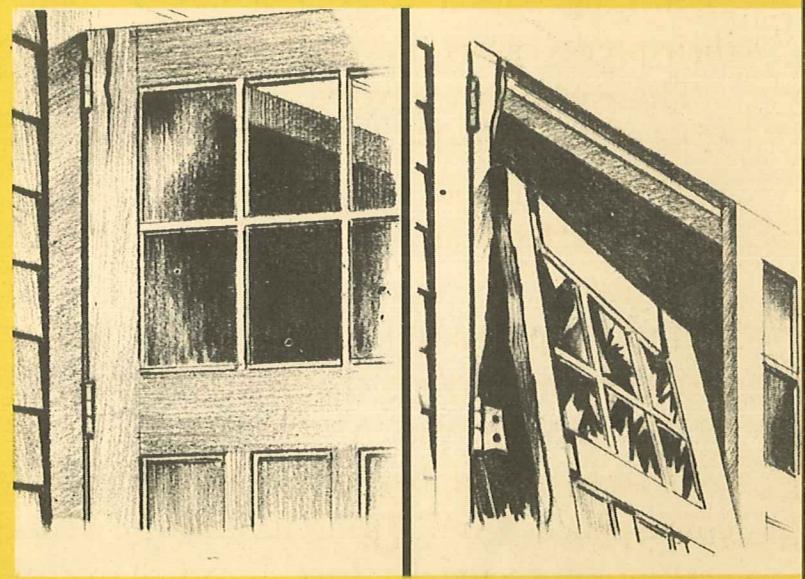


To repair the cracked stucco when the crack first appeared (as shown upper left) would have cost but a few dollars. But the job wasn't done—the cracks grew into larger fissures and later chunks of stucco fell out. . . . If other parts of the wall are in a shape as bad as the picture on the right indicates, the entire wall will have to be resurfaced or re-sided. The money spent for such a replacement would have purchased several pieces of good furniture or a new rug.

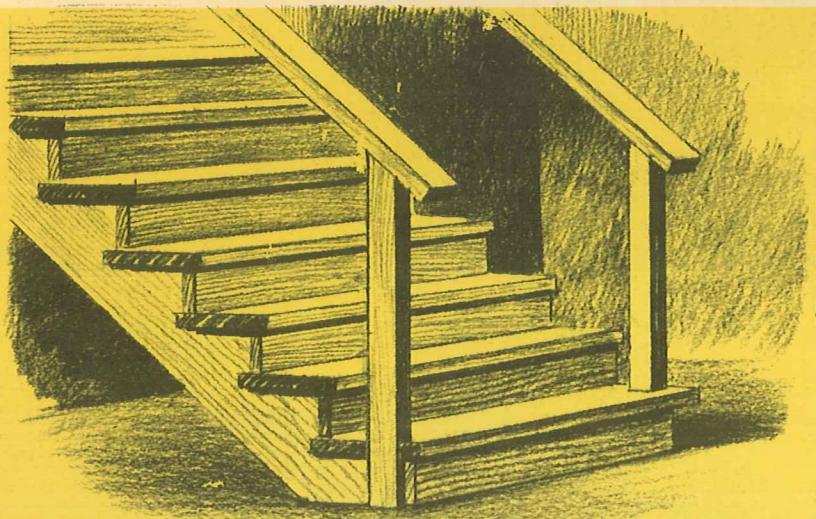
Falling leaves, fine ash, cinders, and dirt accumulate in gutters, thus requiring cleaning and flushing. This job takes little time and costs a dollar or two. The picture on the left is one of these small jobs of care that was neglected. . . . Water from melting snow backed up under the shingles and ran down the interior walls staining them and the ceiling. Redecorating the entire room is the only method of obliterating this unsightliness. The cost is many times that of the gutter cleaning job.



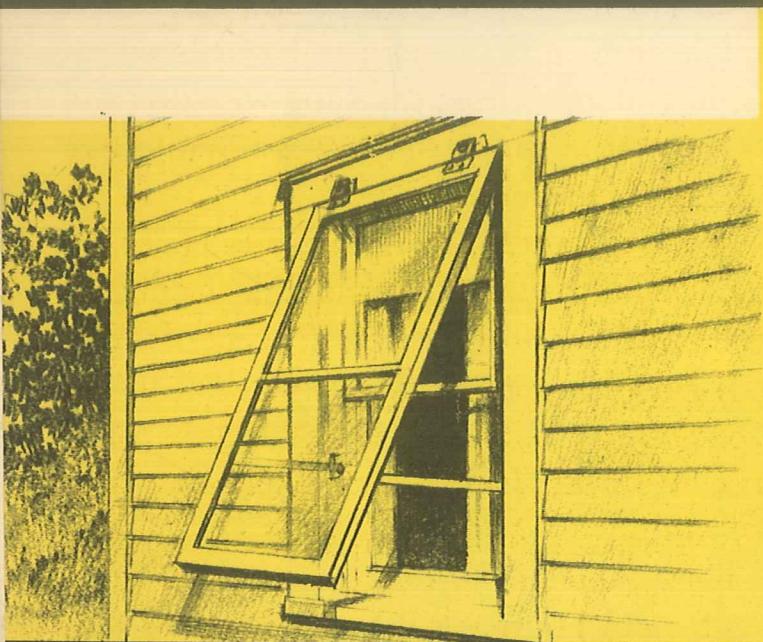
In the picture to the left a crack in the foundation wall near the steps can be noticed. This was caused by rain water from the downspout undermining the wall at this point, causing it to settle. A few dollars spent for rebuilding the footing under this portion of the wall would have restored it. . . . But this was neglected and we can see in the picture to the right that a large repair bill is due. The entire porch structure has settled, sagged, become unsightly and unsafe.



A small split near the top of the garage door stile can be seen in the picture on the left. When this occurred it could have been repaired in short order at the cost of a few cents. . . . The next time the car hit the door the weakened stile split, the door crashed and was almost demolished, as shown at the right. The owner will have to buy a new door. He is out of pocket many times over what it would have cost to repair the small split.



The stout handrail on this open cellar stairs is a small expenditure that paid big dividends by protecting users against dangerous falls. Cellar stairs, in fact any stairs without this protection, are a hazard to life and limb. Incidentally, a shaky rail may prove worse than none at all. It should be securely fastened and braced. . . . Also note the sturdiness of the stairs, another accident preventive.

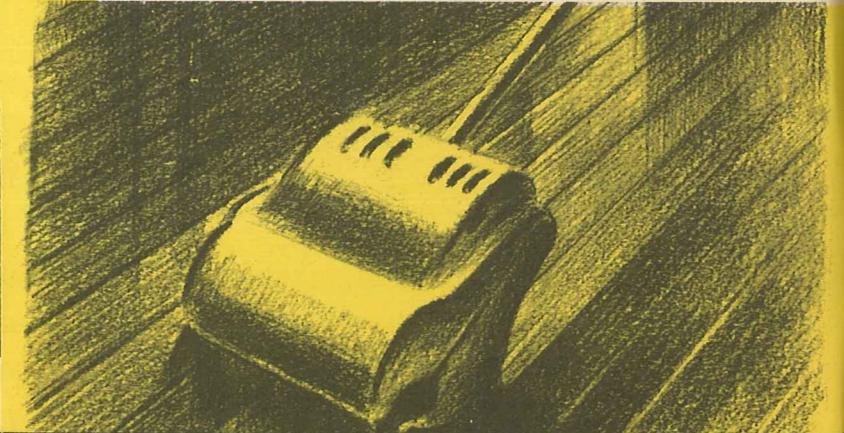


Storm sash are not costly and they soon pay for themselves with fuel savings. They stop the excessive formation of frost on windows and help keep the interior of the home more comfortable and healthful. Likewise, they make furnace tending easier. In cold climates where the winters are severe, the combination of weatherstripping, house insulation, storm sash and doors is a paying investment.

OTHER REASONS FOR KEEPING HOMES IN GOOD CONDITION



Wood louvers in the attic walls are a good investment if the attic has no windows or other means of airing it. By permitting air to circulate, these openings help prevent the condensation of moisture on the attic walls and roof. . . . In summer they help keep down high temperatures in the attic, thus making the upstairs rooms more comfortable.



A wood floor will last indefinitely if the surface is protected with durable varnish. The varnish, if in turn protected by occasional waxing, will not wear off. Refinishing a floor with varnish is much more costly than occasional waxing. Many families have discovered that the cost of a waxes and the necessary wax is money wisely invested.

of two nails is blown away. The subsequent hole in the roof allows rain to enter—a twenty or thirty dollar job of replacing fallen plaster and redecorating is a result. A twenty dollar job that should have cost only the price of two nails!

Very often even minor repairs can be fore-stalled by proper care. For example, the floor which receives a timely coating of wax has its finish and the wood, itself, protected against wear. A coating of wax costs but a few cents. To refinish a floor requires the removal of the old finish and the application of new varnish. Not only is this a more costly job but it also is an annoying inconvenience.

The cheapest method of keeping a house new can be summed up as follows:

1. Give regular or needed care before repairs or replacements become necessary.
2. Have your home inspected twice a year—in Spring and Fall. See that necessary repairs are made promptly.
3. Major changes or “modernizations” should be made as the needs of the family or the times require.
4. Develop the plot or homesite over a period of years following a preconceived plan—thus adding to the actual value of the property and offsetting “book depreciation” of the structure.

If such a plan is followed, a sound house will remain so, and its upkeep cost will be surprisingly small. It will be always in condition to sell, will bring a higher price and will sell or rent far more readily than neglected property.

Saving money—as important as this is—is

not the sole reason for keeping a house in good shape.

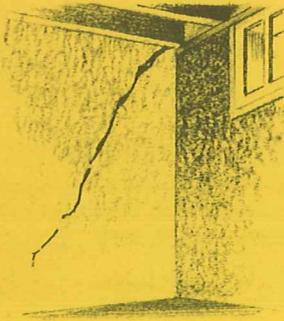
Take the important matter of health. Health can be materially affected by adverse living conditions which might easily be avoided.

The ideal condition within the home is one in which temperatures, humidity, and air circulation are controllable. This is possible to a very large extent both in summer and winter if the walls, roof, windows, and doors keep the extremes of weather outside. Damp, dark, and unsanitary basements and interiors breed disease.

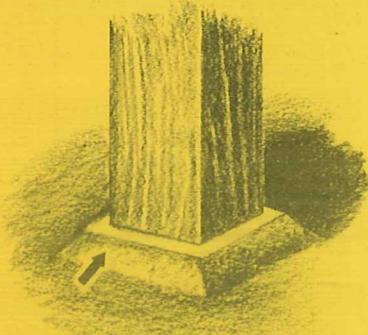
A sticking window excludes fresh air and ultra violet rays. Faulty basement steps or a shaky handrail more often than not lead to serious accidents. Faulty chimneys, flues, and heating equipment are hazards which might endanger lives. Rattling windows and squeaky floors jar on the nerves and interfere with rest and sleep.

The well kept house is comfortable for the family and visitors. It gives that feeling of security which brings ease and peace of mind. It is easy to care for and convenient to live in. Its arrangement is such that time, steps, and energy are saved. Its equipment works smoothly.

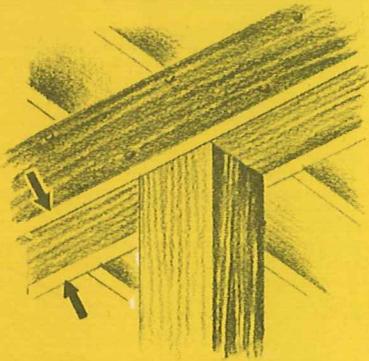
Then there is the matter of honest pride—which by no means is to be confused with “living up to the Smiths.” The well kept home wins the commendation of neighbors and sets them a good example. It has its practical side in keeping up the “tone” of a neighborhood. It is the right sort of environment in which to raise children, receive guests or entertain friends and business associates. It adds to the enjoyment of living and helps to make up for the disappointments which have a way of occurring in life.



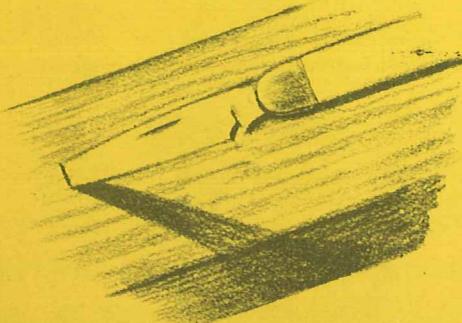
A crack such as this is caused by insufficient footings under the foundation wall, which has caused it to settle.



The arrow is pointing at a concrete base on which the bearing post rests. Because it is kept from dampness and water, common to basement floors, the post will remain dry and sound.



The arrows are pointing out two pieces of planking which are spiked to the large girder that supports the joists. Such reinforcement is required if the girder has sagged or is badly checked.



When wood is subject to alternate wet and dry conditions the interior of the pieces may become unsound. A jack-knife jabbed into the ordinarily firm wood will reveal whether a change or reinforcements are necessary.

INSPECTING THE HOME

An Inventory of Condition

As was mentioned previously, thorough inspection of the house twice a year is recommended to owners as a means of detecting the parts that require attention. This frequency of inspection is advised as the surest means of uncovering minor faults before they grow into major ones. If the owner is not familiar with house construction, the inspection should be made by one who is.

It may be interesting to the reader to know just what an experienced builder looks for. Let us take an inspection trip through a house with its owners and a builder.

THE BASEMENT

First, let us go to the basement. The owner is fortunate if the foundation walls are dry and there is no seepage of moisture from without. For such a condition, the builder says, can usually be overcome only by removing the earth from the walls outside, cleaning, and then treating them with asphalt paint, coal tar pitch or rich cement mortar.

Next we look to see if there are cracks in the foundation wall. None is discovered. The cement floor also is in good condition.

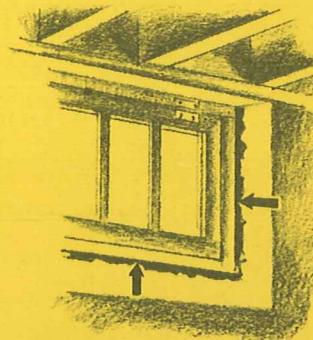
Any good builder will shake his head woefully if he finds damp basements and badly settled walls, for he knows that both probably could have been avoided if proper construction methods had been used. Incidentally, this is true of many house ills, especially those relating to structural faults.

Next, let us examine the sill which is the framing member on top of the foundation. The builder sticks a knife in it to see if the wood is sound. He notes if there are cracks between wall and sill which should be caulked to keep out moisture and cold air.

Now we observe the bearing posts—the one or more upright posts in the center of the basement. They are not badly checked and are found sound at the bottom where they rest on concrete bases raised above the floor level.

Next we give our attention to the large girders on top of the bearing posts. Are they sagging or badly checked? (Girders will not sag if they are of sufficient size or proper grade.)

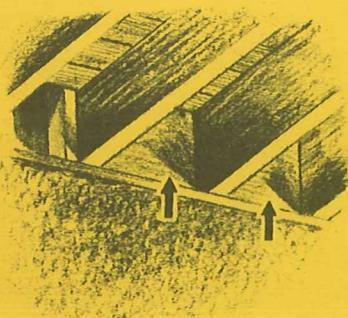
Now come the joists which rest on the girders and foundation walls or sills. We look to see if any of them are warped, sagging, or badly checked. When their condition is bad, the floor above will be insecure and most assuredly it will squeak. It may be necessary in such cases to replace



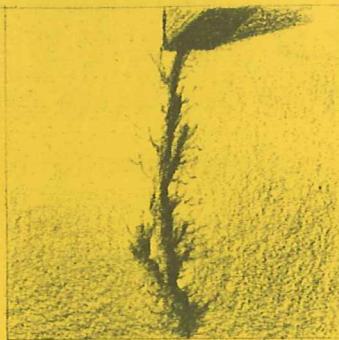
Basement sash frames should be checked carefully to ascertain whether the concrete furring has broken away from the wood thus permitting cold air or dust to enter the basement. Calking the cracks overcomes this condition.



Perhaps an extremely hot fire caused the asbestos cement to crack and loosen around the smoke flue where it enters the chimney. New asbestos cement will eliminate any hazard this may cause and will also make the furnace draw better.



One reason why wood has proven to be such a satisfactory building material is that since Colonial times, frame construction has been made fire resistant by the use of what is called fire-stops. The arrows point to their use at joist ends where they seal the openings in the walls.



Wood eating termites often herald their presence by the shelter tubes which extend from the ground up the walls to the wood members which they are attacking. It is through these tubes that the insects obtain the moisture from the ground to sustain them.

defective joists or add additional ones.

The builder notes that the joists are securely braced with the small cross members, commonly called bridging. Careless fitting or nailing of bridging can be partially remedied by renailing, he explains, and adds that if there is no cross bridging in a finished house it is too late to apply it.

The joist ends are then tested with the knife for soundness. The builder also notes if there are "headers" or pieces of two-inch plank placed between the joists at the wall ends, or other methods used to close off the basement from the open spaces in the walls above.

Now for a brief inspection of the framing around the stair opening. The joists around the stair opening are doubled and securely fastened and supported at the ends. The builder explains that if stairs turn at a landing there should be a supporting post underneath the joists at that point. He examines the stair strings which carry the treads to see if they are well supported at the top and if they rest on a concrete base raised above floor level.

While we are looking for defects and hoping to find soundness in the supporting structure, let us see if the plumbers or electricians have weakened any of the framing members by severe cutting, notching, or boring.

Before we quit the basement let us see if the house has become infested with termites—a wood-eating insect with a voracious appetite and great determination. Their presence is indicated by slender shelter tubes up the walls to the wood members, or, if damage is done, by "honeycombing" of the wood. Destruction of the tubes will kill all termites above as they will be unable to secure necessary moisture from the ground. Other measures should be taken to forestall future entrance.*

Now we shall look for uncalked cracks around window frames and also note if the windows fit tightly. It is well to try the windows to see if they can be opened so that on dry days the basement will receive beneficial air.

The condition of the brick chimney is important. Is it cracked or does it seem to have settled unevenly? Is the mortar between the bricks crumbling or loose?

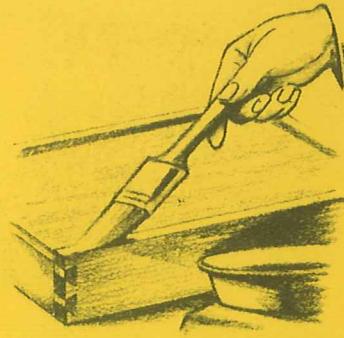
On the way upstairs our guide steps heavily on the stair treads to see if they are secure. Evidently they are, as we arrive safely upstairs to continue the inspection.

THE KITCHEN

Here we are in the kitchen.

"You can possibly tell me more about this kitchen—what is right or wrong—than I can discover," the builder says to the housewife who now

*If the reader's home is infested with termites, he should send to the Superintendent of Documents, Washington, D.C., for leaflet No. 101. The cost is five cents—coin *not* stamps.



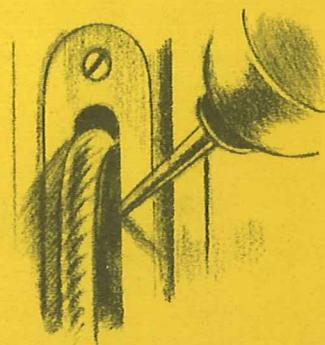
Here's a little trick that is worth knowing. Hot paraffine is being applied to the drawer runners to make the drawer work easier and to keep it from sticking.



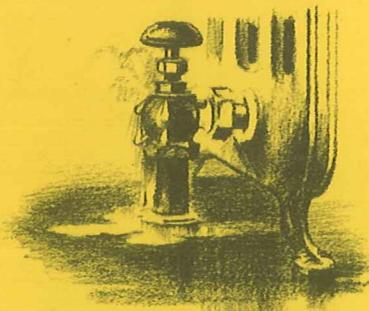
One reason for a lower sash not staying open when raised is that the sash weights are too light. If this is the case, small additional weights may be hung on the original weights. The other reason is a broken sash cord.



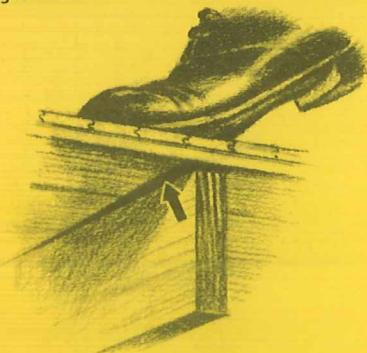
Sticking windows have ruined many a disposition. They are caused by improper fitting, settling of the house, swelling of the wood or hardened paint.



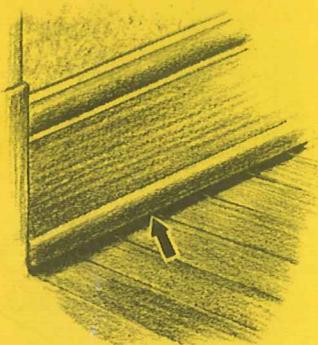
A drop of oil on the window pulleys will make them operate better for the same reason that lubrication makes your automobile work smoothly.



Leaky radiator valves stain and damage floors and rugs. A plumber can repack a valve very quickly; the cost involved is very slight in comparison with the damage that may ensue if the work is neglected.



When the underside of a floor is exposed as in a basement, it is a simple matter to eliminate floor squeaks. A few small wedges driven between the sub-floor and joist will correct this condition.



Notice how the base shoe or moulding has pulled away from the floor thus making a large dust-catching crack and hideout for vermin. This would not have happened if the base shoe had been nailed with long nails to the sub-floor.



Thresholds will wear out after years of service. They are easily replaced, are inexpensive and will save much fuel by keeping cold air on the outside. It is well to investigate the possibility of installing weatherstrip around doors and windows for the same reasons.

seems more interested than during the inspection of joists, girders, and cement in the basement.

"It's nice and light and the air is always good, but it's inconvenient," she replies, adding: "I've rearranged the cupboards ever so many times but still it's bad. I always seem to be getting in my own way, and if anyone else is in here while I'm working, it's as crowded as a department store the day before Christmas."

"I've never done much kitchen work except to build them," the builder answers, "but this kitchen appears to have been designed in the days when tiny kitchens were the vogue. They were supposed to be step-saving. It sounded well but it didn't work out in all cases."

"Since that time architects and home economics experts have studied the routine of work and as a result have planned some very efficient kitchens."

The builder examines the plaster for large structural cracks and smaller shrinkage and map cracks. He explains the difference between the various kinds and how each may be eliminated.

With the aid of a stepladder the builder next tests the ceiling to see if the plaster is loose in spots. He explains that blocks of plaster which have separated from the base do not always herald their condition by falling as soon as they become loose.

Now the builder turns his attention to the cupboards, drawers, and woodwork. He tries the drawers to see if they stick or if they are so loose as to become jammed in opening. The cupboard doors are likewise tried for sticking, or for looseness so excessive as to keep the latches from holding. The joints of the woodwork are examined to see if they have opened up, permitting dirt-catching spaces.

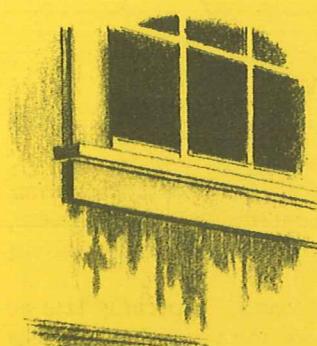
Next the doors are scrutinized for sticking. The outside door is checked to see if it permits the passage of cold winter air around the edges.

The windows are found to be tight but not so tight that they stick. When raised, one lower sash will not stay up without a prop, which indicates a broken sash cord. A carpenter can fix it in a short time, the builder says.

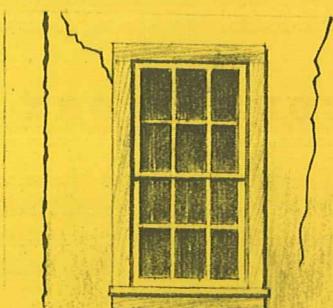
The pantry next receives the builder's attention. The housewife says that she uses it so little that she doesn't care whether or not it is in first class condition. The builder informs her that the pantry is not conveniently placed for its intended purpose but that it could be made into a splendid breakfast alcove.

DINING ROOM AND LIVING ROOM

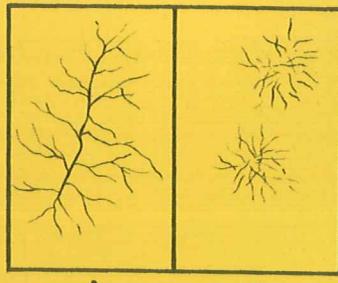
In the dining room the walls, ceiling, woodwork, windows, cupboards, and floors are gone over in the same manner as in the kitchen. The walls under the windows are examined for water stains. Careless fitting of the



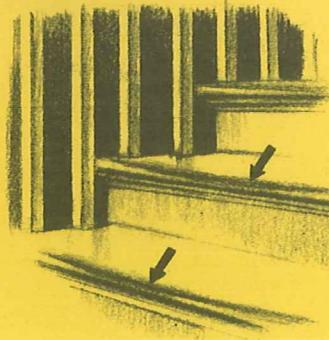
Stains on walls under windows are such a common occurrence in homes that some owners believe them unavoidable. They are caused usually by improper fitting of the window stool. A carpenter can refit it easily.



The wall cracks illustrated above are known as structural cracks. They form quite large openings which should be filled. One cause is excessive or uneven settling of the structure due to improper footings under the foundation. Another cause is the use of green lumber in the framing members.



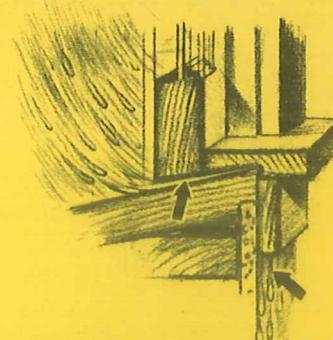
Cracks "A" above are "map cracks" caused by improper bonding between the plaster and the lath base. They are smaller than structural cracks although they extend through the plaster. Cracks "B" above are "shrinkage cracks". They are small and are usually confined to the finish coat of plaster.



If the number of steps that have been made on these wood stairs were laid end to end, they would reach to the conclusion that very few materials would serve as well for this purpose. Replace worn treads.



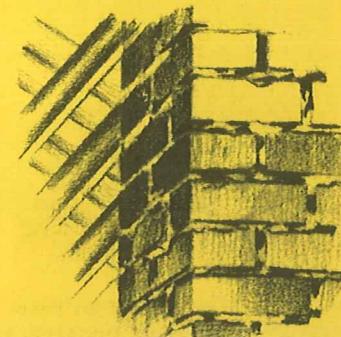
Sticking doors are another easily remedied nuisance that detract from the pleasure of home owning. The causes are loose or ineffective hinges, settlement of the house structure, swelling and warping of the door or frame.



This shows how rain is blown in under an ill fitting sash thus entering the house and running down the wall behind the stool. A carpenter can fix it in half an hour.



The bathtub is the heaviest piece of equipment, excepting the furnace, in a house. Should the bathroom floor settle slightly due to this heavy weight and open a crack at the wall, patch with plaster and paint.



Usually the mortar between the bricks of a chimney will stay in place as long as the chimney stands; if the mortar drops out, it should be "pointed" up for safety.

window and frame, the builder points out, often allows rain to blow in and run down the walls. This condition can be remedied, he says.

A vigorous shake of one of the lower sash while it is raised shows that it is very loosely fitted, which indicates a rattling window during windy weather.

While the sash is raised the builder uses his knife blade to test the soundness of the outside window sill and the bottom rail of the sash. On finding the sill rotted, he delivers a short but emphatic lecture on the indiscriminate use of woods in house building. He points out that all species of woods are not equally durable under exposure to the weather. He adds that if the sill were made of genuine White Pine or Western Red Cedar it would have lasted indefinitely. The man of the house who has tagged along, listens attentively. He remarks that he doesn't know one species of wood from another so the advice is wasted on him. Besides, the damage is done.

The builder retorts that the damage will be considerable if all the sills in the house are in the same condition as the one just tested. He advises the owner to insist on durable woods for needed replacements.

The builder then points out several large cracks in the plaster over the large open doorway between the dining room and the living room. Poor bracing above the opening, he explains, is the cause.

In the living room the same routine but careful inspection is made as in the other two rooms.

Stained wallpaper beneath the casement windows is noted. Casement windows are more difficult to make weather-tight than double hung sash, the builder says. He suggests adding a rain drip to the bottom of the window outside.

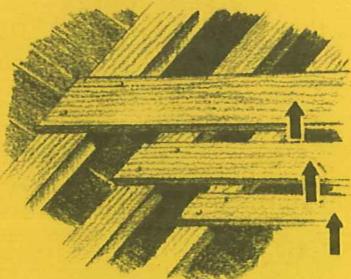
SECOND STORY ROOMS

Ascending the stairway to the second story the condition of the treads, and the security of the railing, balusters, and posts are noted. Squeaking floors follow the three as they cross the hall and enter a bedroom. In here, also, the floor squeaks. The builder emphasizes the noise by treading various suspected boards.

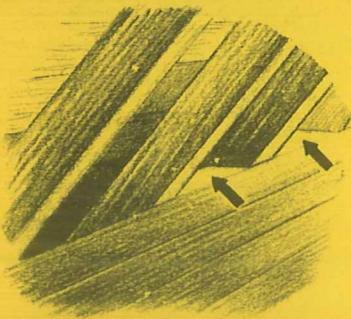
"I've noticed that noise before," says the husband, "especially late at night when I wanted to walk quietly. Taking off the shoes doesn't help either. But I suppose the squeaks do make a good burglar alarm."

"They would," knowingly suggests the wife, "if one were able to distinguish between burglars and late-arriving husbands."

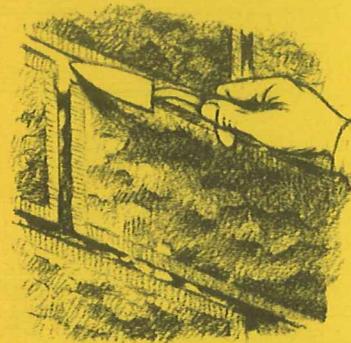
"If you want the noise eliminated, I believe it can be," the builder says to the wife. "The finish floor seems to be sound—I believe the trouble is in the subfloor."



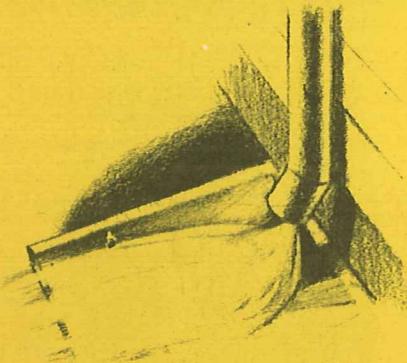
These rafters are called upon to support tremendous loads if the home is in a district of heavy snowfalls. Once the roof is overloaded, it is apt to sag. Braces or collar ties should be added if the rafter span is too long.



Open spaces between studdings or rafters at the attic floor line should be closed off to prevent the circulation of air. This will make the house warmer in winter and also reduce the fire hazard.



The appearance of a concrete block foundation may be greatly improved and made more weather-tight by "pointing up" the loose mortar joints.



Water which is not drained away from the foundations is apt to cause a damp basement. Downspouts are often connected with sewers, but if not, splash boards consisting of stone or concrete should be placed to carry the water away from the wall.

The builder now begins an inspection of the walls, ceiling, woodwork, windows, and doors. The bottom part of the closet door seems willing to open when the knob is pulled but the upper half doesn't respond.

"It's always been like that," says the wife.

"If that's the case," says the builder, "it's not due to temporary swelling of the wood; the door simply isn't well fitted. It can be fixed in a few minutes with a plane. The work should be done carefully so as not to take off too much wood or you'll have the other extreme—an open space for dust to enter the closet."

"When a building is new," continues the builder, "doors often stick. This is due to swelling, caused by the absorption of moisture from the damp plaster. Some people make the mistake of having them planed down at that time, instead of waiting until heat is in the house and the interior has had time to dry out thoroughly. Rattling doors, which won't stay latched, then result. Loose fitting doors in bedrooms are especially bad because they permit cold air to cool off the rest of the house when the bedroom windows are opened at night."

The remaining bedroom is gone over and the inspection committee then moves on to the bathroom.

The tile floor and walls seem in good condition. The ceiling shows a few cracks. The window doesn't open easily; the builder says it is due to friction and suggests applying beeswax to the parts in contact.

THE ATTIC

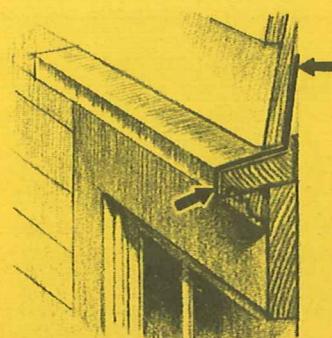
While ascending the enclosed attic stairs, the builder remarks that a handrail would be good safety insurance. The wife remarks that she wishes the ugly stairway could be improved in appearance, especially if it is possible to build two rooms in the attic.

"In regard to adding the rooms, the joists will stand it," answers the builder, noting their size by peering down through the open space at the edge of the incompletely finished floor. "But you'll need another dormer for light and cross ventilation. The architect will be able to plan that without hurting the appearance of the exterior."

"See the condition of this chimney," the builder points out. "The mortar has fallen out so badly you can see through the chimney in places. Another thing, the flue lining doesn't go all the way up to the top. I don't see how that could have occurred unless they ran out of flue tile and couldn't wait for more."

"What can be done about it?" the home owner asks.

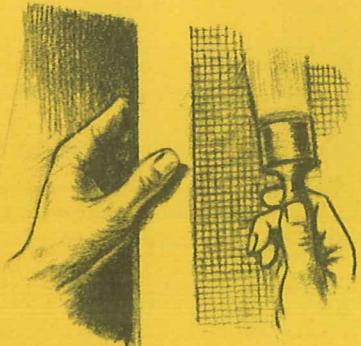
"I believe it will pay you, when you are putting in the rooms, to rebuild



The window frame should be securely fastened to the wall, properly painted and adequately flashed. Flashing is merely a metal protective member that seals the joint between the head of the frame and the wall.



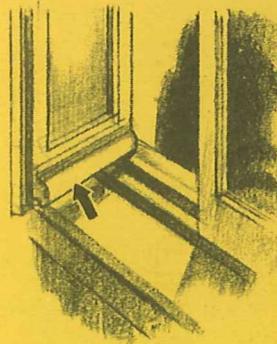
Putty is the material that keeps the glass in a window watertight. If the putty becomes loose, remove the loose sections and re-putty the windows. This will keep air from filtering in around the glass, keep out dust and make the window last longer.



Before screens are put away for the winter, the wire should be brushed with boiled linseed oil to prevent rusting. The wood frame should be painted every three or four years.



Before a house is painted, attention should be given the window and door casings. See that all casings fit the wall tightly—a few nails at these points will keep the house more weather-tight.



A casement sash has a difficult function to perform. It must be easily opened for the admission of light and air, yet tight enough to keep the rain and wind out of the house. It can be helped in giving good service by weatherstripping and by a water drip (as illustrated) on the bottom rail to carry the water away from the bottom of the sash where it is most likely to enter the house in a driving rain.

the chimney from the floor on up. If you don't want to do that, you'll have to repoint the mortar joints and perhaps coat the chimney with rich cement mortar."

"The roof is sagging a little," the builder informs them. "You'll have to run some collar ties between the rafters. They won't interfere with the ceilings of your two new rooms because of the steep pitch of the roof."

"Is there anything *right* about this house?" explodes the husband who has visions of colossal repair bills.

"Not to be personal, but how much have you spent on this house since you built it?" queries the builder.

"We didn't build it, we bought it new about ten years ago; but that wouldn't make any difference. We don't profess to know anything about house construction and it perhaps would have been just the same or worse if we had built it. You ask about repairs to date—they've been very few that I remember. We had it painted two or three times."

"If this house were an automobile, you would have had it in the shop dozens of times for repairs and overhauling. And besides, I'll wager you have bought two or three new cars in those ten years. And when you bought those new cars I'll bet you paid a great deal of attention to the engine, body, front axles, and dozens of other features. Now, with your ten-year-old house which hasn't had anything but a few repaint jobs and which has already outlasted three or four autos, you act alarmed when I point out a few mistakes in construction."

"The truth of the matter is, this house is in very good shape, and it would be even better if it had been built from more rigid specifications."

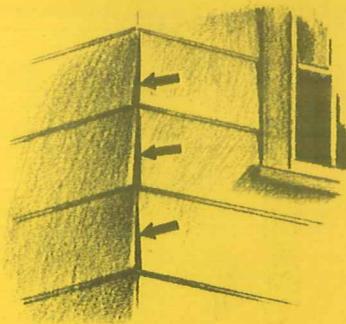
"I never thought about a house the way I do cars," replies the owner, "but now that you bring it up that way I think there's a whole lot in what you say."

The builder turns his attention to the sides of the attic where the rafters meet the floor line.

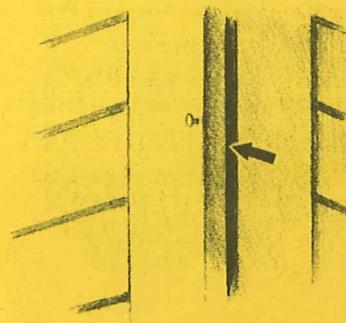
"Here's a good point in construction," says the builder. "Notice how those rafter ends are securely fastened to that plate and how the plate is anchored to the sidewall studs. This roof will never blow off. On some houses the roof is just set on the side walls and not very well nailed or fastened. They trust to the weight of the roof largely to keep it in place. In a tornado or very strong wind a roof put on that way might blow off as easily as a hat in a strong wind."

"Here's another good point in construction," says the builder. "Notice how these horizontal flues between the floor joists are fire-stopped with those thick pieces of planking fitted between them."

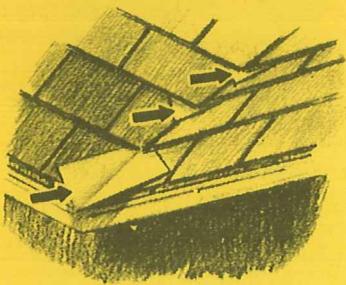
The builder after reporting that the attic windows are weather-tight, says that they are through with the attic and ready to look over the out-



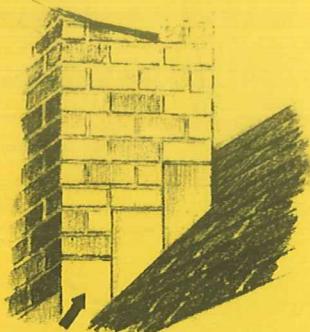
House siding which is subject to all of the changes of weather from extreme heat to bitter cold, dry weather and wet, requires the utmost from the wood of which it is made. That is why woods like Western Red Cedar and White Pine are recommended. Should the corners of the house open slightly, it is a simple matter to nail them together and prevent water from getting behind the siding to spoil an otherwise good paint job.



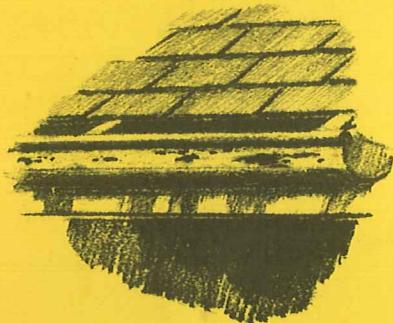
Corner boards should be inspected before a house is painted to see that they are tight. A few nails driven at the proper points will keep out moisture.



A good roof is no better than its flashing. Inspections will reveal if flashings are sound. Unless they are of copper, they should be kept painted. Valley flashing where snow and ice are liable to cause trouble should be given particular attention.



Metal flashing at the meeting place of chimney and roof requires inspection occasionally as the exposed metal has a tendency to rust unless kept well painted or is of copper.



Gutters should be kept clean, as wet leaves and other accumulations are apt to cause a metal gutter to rust. The inside or trough of gutters as well as the outside should be painted to prevent rust. The efficient and sightly wood gutter also requires cleaning and painting to give best results.

side of the house. The group descends and after putting on wraps goes outside.

THE EXTERIOR

The foundation is the first part checked. The builder goes entirely around the house looking for cracks and evidences of undue settling.

Coming back to the inspection party, he digs in the dirt by the wall disclosing a black coating on the wall surface. That asphalt coating and good drainage, he points out, are responsible for the dry condition of the basement.

He looks at the supports under the porches to see if they have settled.

Then he examines the siding. "This is White Pine," he says, as he sticks his knife into the wood. "If the dining room window sill had been made of this wood, it wouldn't have rotted."

The condition of the putty around the window glass is next noted. The joints in the siding where the pieces meet at the corners is inspected for openings. The outside trim around the windows is tested for soundness and inspected for open joints.

Then the porch column bases and the porch flooring are looked at. The builder peers under the porch and tests the joists supporting the floor.

"There is plenty of chance for air to circulate under that porch and keep the wood dry and healthy," he says. He cautions against unventilated spaces under porches which are conducive to dampness and rot-producing conditions.

The porch steps are found to be sound and solid. The porch ceiling seems in good condition and shows no stains or signs of water seepage through the porch roof. The porch stair railings and posts are found secure and solid. The joints between the railing and the porch columns receive special attention. Tight joints here, the builder points out, are necessary to keep out damaging rain and moisture.

THE ROOF

The builder then ascends a long ladder to inspect the roof. The owners wait below for the report. The builder moves the ladder frequently.

The builder's report, after he descends the ladder, is reassuring. He has found nothing that needs repair. The gutters, however, require cleaning.

"What did you look for up there?" asks the husband who, for the first time during home ownership, has become house-conscious.

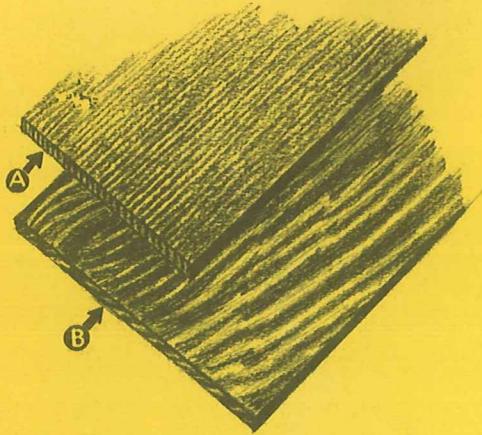
"I looked at the condition of the gutters and downspouts first. Due to the several paintings they have received they are in good condition. But they should be freed of an accumulation of matted leaves.



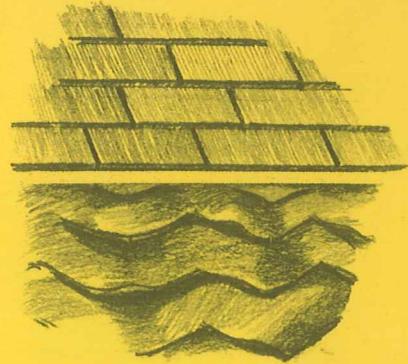
It is a simple matter to keep ridge boards tight. These should be kept painted whether they are of metal or wood.



Chimney capping may become broken. It should be kept in good condition in order to keep the rest of the chimney intact.



The edge grain shingles lay flat and are much longer lived than are slash grain. "A" illustrates an edge grain shingle. "B" shows a flat grain shingle.



Western Red Cedar shingles may be applied over the old roof. Cedar shingles applied with hot-dipped zinc coated or copper nails will last for forty years and will greatly enhance the appearance of the home.

"I also inspected the cornice and trim under the eaves," continues the builder, "and found the wood sound and the joints tight. Incidentally, the wood is White Pine, so you can be assured that the man who built this house did use more than ordinary care in the selection of his lumber."

"The wood shingles are edge grain, Western Red Cedar, and should last you twenty, thirty years or more. They are not curled or warped. Had they been flat-grain shingles they would not have lasted many years longer than asphalt or composition roofing."

"The flashing or metal in the roof valleys and around the chimney is copper and should last as long as the roof. You are fortunate in this because cheaper metal is often used to seal these joints. When it rusts out, it is quite a job to insert new flashing under the shingles—more likely than not you would have to rip them out to get the new flashing in."

"I didn't climb on the roof but I believe the ridge boards are in good shape. Their purpose is simply to seal the place where the roof slopes join. Often these boards open up and let in the rain."

"And I guess that's about all," concluded the builder.

ARRANGING FOR REPAIRS

"I noticed you were making notes about repairs as you went along," the owner said. "I'm glad you did, as this subject is so new to me that I can't remember all that needs fixing."

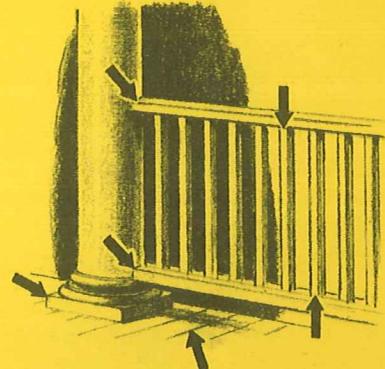
"Yes, I've got a list of it and I will be glad to give you an estimate for putting your house in first-class shape, but first I've got a suggestion to make that I think you will find interesting."

He turns and addresses the wife, "You mentioned that your kitchen arrangement wasn't satisfactory and also that you wanted two bedrooms in the attic. Perhaps there are some other little changes that you would like to make. I can drive you down to the 4-SQUARE lumber dealer's office where we can discuss the matter and look over some of the new materials and house equipment. I believe you will get a lot of ideas there that will be of value to you while you are planning the improvements in your home. We can put you in touch with an architect or designer who has done a lot of house remodeling work. I know he can straighten out your kitchen difficulty and also lay out some very attractive attic rooms. Then I can give you an estimate, so you'll have an idea of what the entire remodeling and repair job will cost."

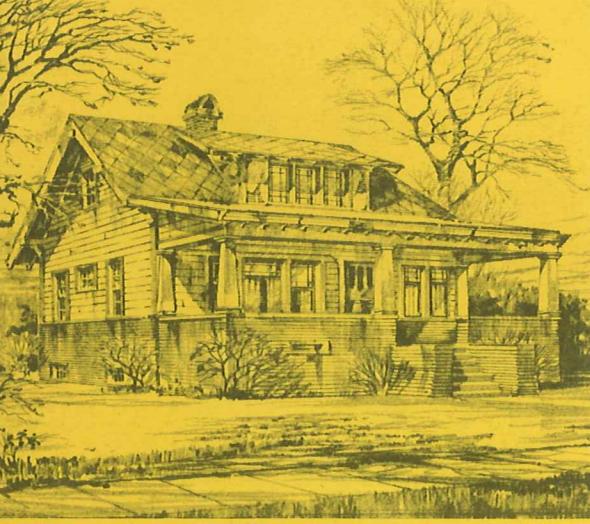
The suggestion *did* sound good to the owners who were more than a little perplexed at this unaccustomed problem. They were glad to be able to place the responsibility on one person who would look after the entire matter, thus relieving them of dealings with a variety of persons on unfamiliar matters.



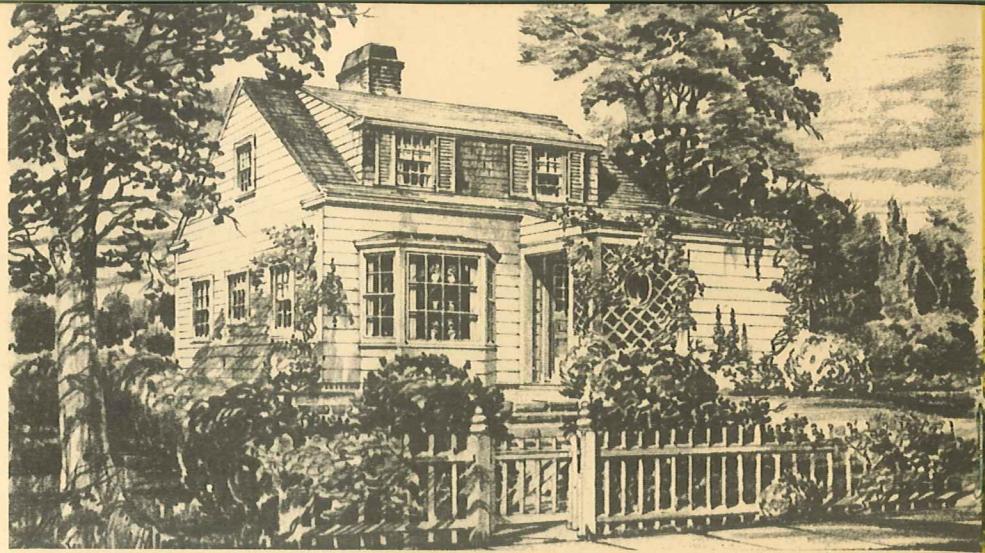
It is well to see that damp leaves and other articles are not permitted to accumulate at drainage openings such as porch scuppers illustrated here. Their presence will affect the paint, wood, and general usefulness of these openings.



The arrows indicate a few points to check on a porch. Where joints occur it is well to see that they are tight and well painted. No matter how well painted a porch may be, if open joints permit water to enter, the unpainted ends will deteriorate prematurely.



• Whole communities of houses similar to this one have been built and sold with very little thought given to the probable cost of future repair and maintenance. Good design and materials can easily change them for the better.



• Under the magic of the good architect the original house now attains in this showing a simple dignity. Two bedrooms in the attic now for children or extra guests and a very welcome addition to the first floor space in the new room added at the right. A simple porch treatment, the whole confined by a completely friendly wooden fence.

MODERNIZING THE HOME

• There are "fashions" in home design, both exterior and interior, just as there are in clothes.

The house on the left on this page and those on the left on the opposite page illustrate types that were fashionable from about 1890 to 1915. Today these houses are not desirable from a design standpoint. The reason is not so much their age; they are lacking in the essential qualities of good house design—proportion, scale, color, texture, rhythm, and repose.

The majority of present-day home owners, although they may not have analyzed the matter, have a feeling for good house design. That is why, for instance, the Colonial houses of our ancestors are preferred to the gingerbread houses of the nineties or the later box-like structures with their unpleasing proportions.

When the majority of home owners no longer desire certain types of houses, then these lose market and rental value. They also lose caste in their owners' eyes and are not kept up and cared for as they once were.

When a house comes in this class it requires remodeling if the owner wishes to retain his pride of ownership and to protect his investment. Not all homes lend themselves to remodeling. Those which are well built of good materials can usually be made into very pleasing and livable homes.

You will find that pleasing homes have a great deal in common. They hug the ground instead of seeming to stand on stilts. Planting mellows the meeting line of house and earth so that the house seems naturally to be "rooted" to its setting, rather than appearing as an ungainly box that the next vagrant wind will blow away.

The porches on these pleasing houses do not seem "stuck on" as by afterthought. No doubt this blending is part of the architect's artistry, but there is a more practical subtlety involved—

these porches seem usable and are used. You picture the occupants getting enjoyment along with a maximum of privacy out of their porches—no matter if they are of the open type, screened, or of the glazed sunroom variety.

Then there is the entrance (perhaps this should have been mentioned first). It invites and whispers of loveliness within, of pleasant interiors, of enjoyment. The other entrance extreme, which is repellent, forewarns of ugliness and gloom within.

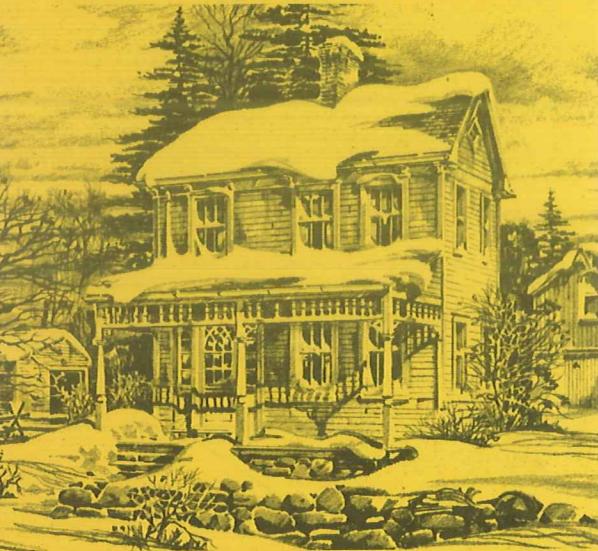
The placing of window and door openings in the wall surface, and the size and shape of these openings are very important factors in making pleasing and restful the elevations or sides of the home. In the less sightly house, although the openings are often symmetrically placed and should therefore present a balanced wall surface, they seldom do, even to the untrained eye. This is due largely to the conflict between the varying shapes of the remaining wall surfaces and a lack of harmony in proportions between these and the openings. Although we may not all have an answer for it, we know that an oblong is more pleasing to the eye than is a square and subconsciously we prefer certain proportions in oblongs to others.

Then, perhaps, one has noticed how the architect adds to the attractiveness of a house by breaking up the window openings with pleasing oblong divisions. He has a very definite reason for doing this which you readily will recognize by looking at some houses or pictures of houses. Note how windows with very large panes of glass look like black holes stuck in a wall. Then note how the white cross bars in a divided-light sash lighten and break up the hole so that it is no longer a hole in the wall, but a pleasing part of the wall itself. Wood shutters or blinds also have a tendency to blend wall and window into a unified whole and to furnish both attractive color contrasts and harmony.

Continued on page 18



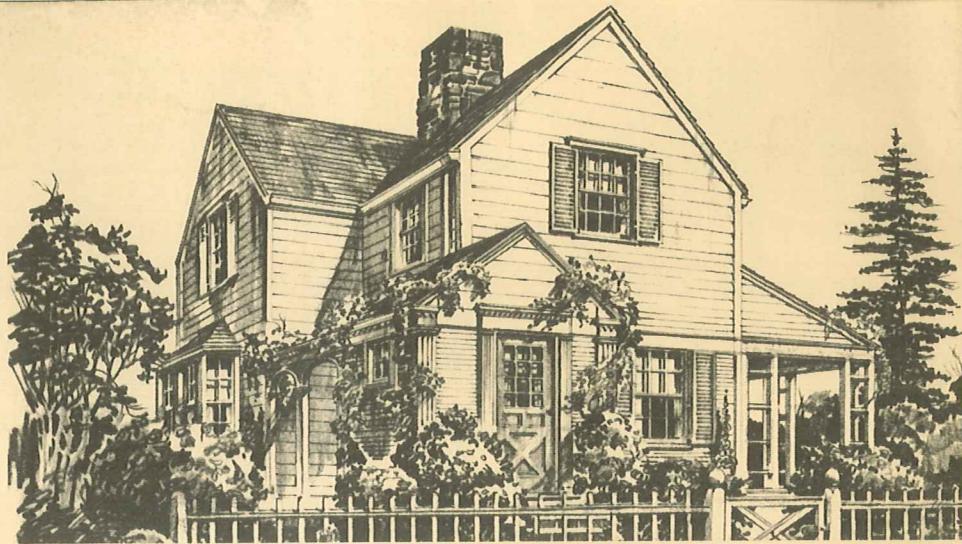
• Houses of this type, undoubtedly of the 1890's, can be assumed as having a sturdy frame and many years of structural soundness ahead. But they are hopelessly antiquated when they exist in their original state. They have no appeal whatever for moderns.



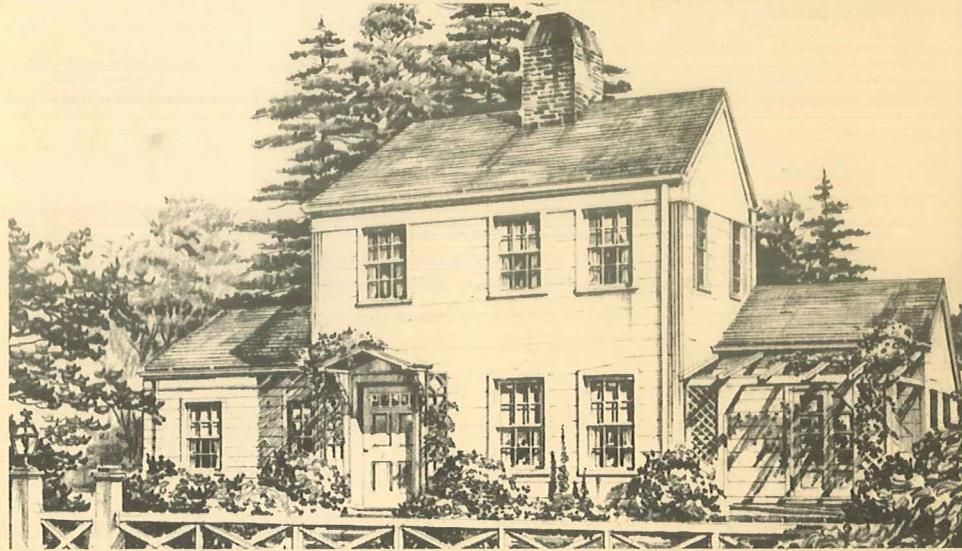
• No less than houses in the cities and suburbs, the farm type house with its barns and accessory buildings can be made vastly more livable and attractive through modernization. Such a house can be greatly expanded in usefulness without added rooms.



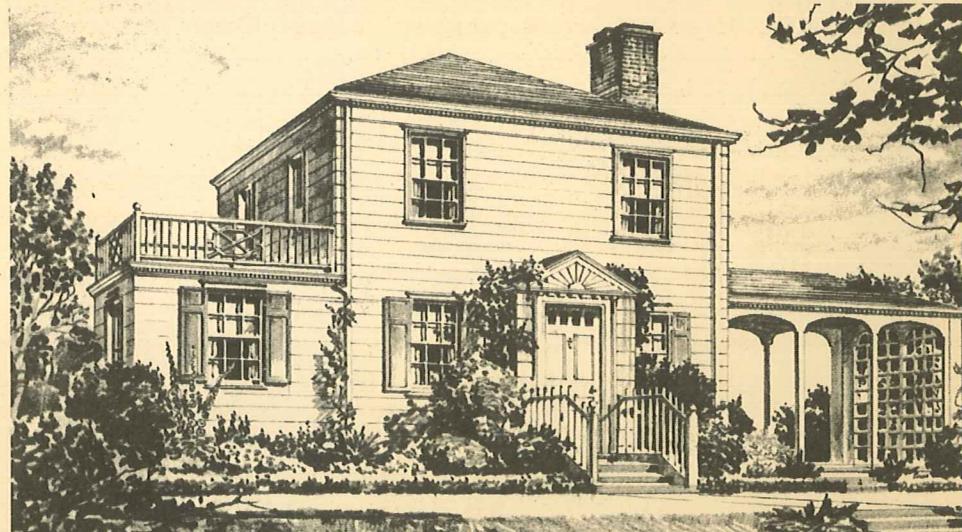
• The square, box-like type of house was the logical answer to the house problem in most cases where a large amount of bedroom space, very low cost and a narrow site were outstanding conditions governing it. But they lack appeal to present buyers.



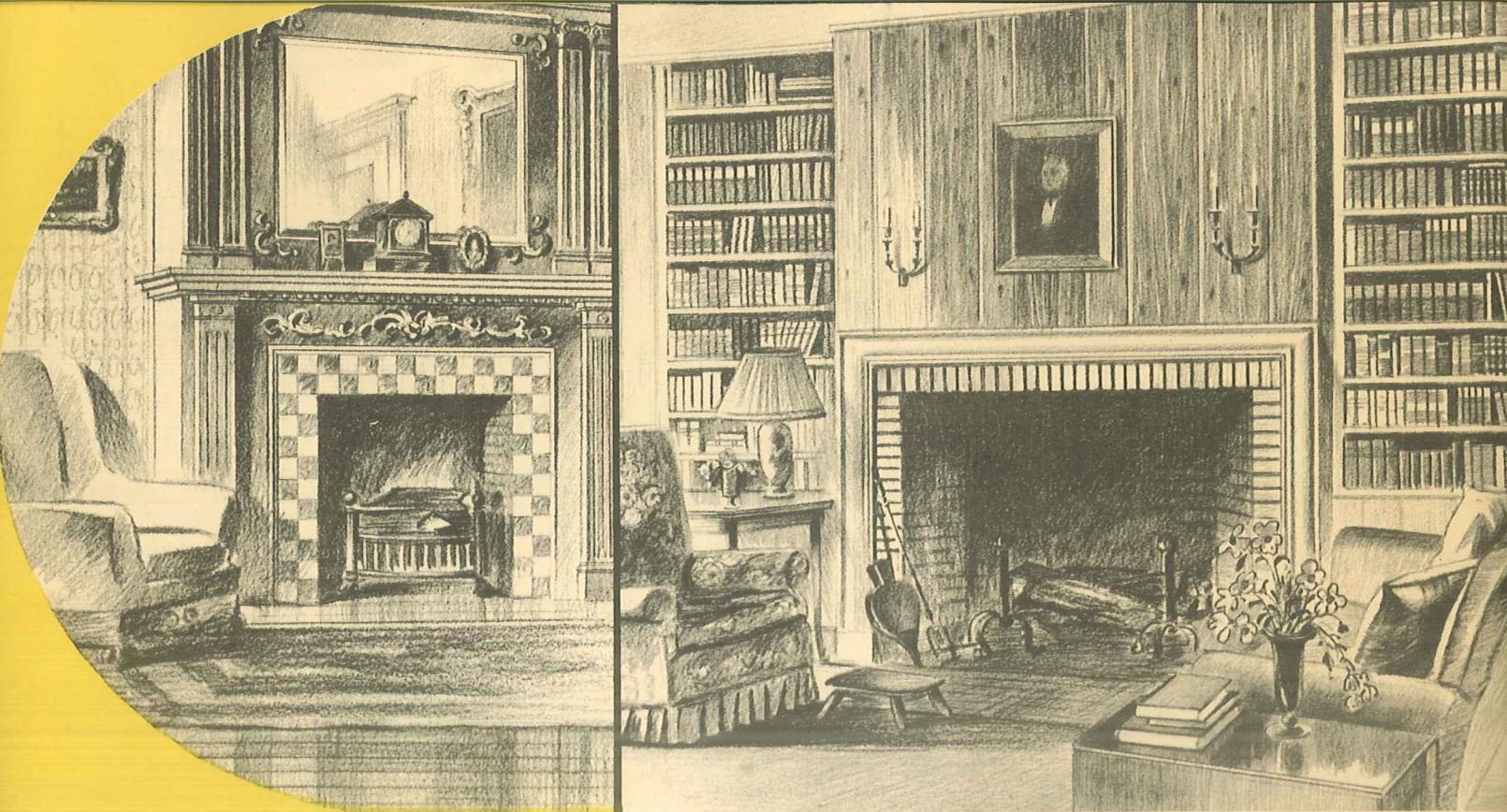
• This time the old house has emerged with a small one-story wing with low gable roof which is unobtrusively submitted, giving a small waiting room or opportunity for first floor lavatory. Among the inside possibilities are a large first floor sleeping room, modernized kitchen and more compact dining room. A shady nook at the left and family porch at the right are possibilities common to all houses of the old type.



• This house now makes a distinct appeal both to good taste and good judgment. More sleeping and living area in the wings, a pergola-roofed terrace covered with wisteria or any colorful climber and a white Puritan fence of pine or cedar. Wide Western Red Cedar siding helps this house maintain its character. It is amazing what good design can do when combined with the proper materials.



• This transformation takes place on a wide lot area if the owner desires more room. Enlarged living room with sun deck, while at the right an open porch hugs the ground. A new entrance, Colonial in origin, puts the finishing touch to this amazing series of simple changes. The owner, in truth, has a new house and whether he modernized for revenue or for his family, he discovered and used the Hidden Values in his Home.



• A fireplace is one object in a room which the eye cannot casually dismiss. It usually dominates the decorative and furnishing scheme. That is why an over-ornamented fireplace or mantel is out of place in the home where restfulness and simplicity are the decorative keynote.

• You wouldn't recognize this as the same room as the one on the left with the once flashy fireplace mantel. Well it isn't the same room and never will be again because the remodeled fireplace with pine paneling and flanking bookcases create an entirely different atmosphere. Such transformations of old interiors are almost unbelievable to one who hasn't seen the magic performed.

MODERNIZING THE HOME

Continued from page 16

Sunrooms or porches with large window spaces would surely have the glaring black-hole appearance if it weren't for the divided sash. Unglazed sleeping porches with large black screen surfaces have ruined the appearance of many a home otherwise good looking. Today the architect is happy to find a lessening demand for the screened sleeping porch, for it always presented a well nigh insurmountable problem from the aesthetic standpoint.

You may have noticed that there has been a tendency in recent years to favor wide wood siding over the narrow clapboards so extensively used in previous years. The wider siding has a tendency to "pull down" the height of a house, thus seeming to make it nestle more harmoniously in its ground setting. Traditionally, the wider siding for Colonial houses is correct, and it thus helps to simulate the atmosphere of this early and very desirable type of architecture.

The wider siding being likewise a little thicker, presents a broader, softer and more interesting shadow line without the monotony of the too frequent sharp shadow lines of the narrower variety. The combination of varying width sidings which has been used very effectively from time to time adds additional interest to certain types of homes when handled skillfully. The use of "flush" siding with and without battens, or in

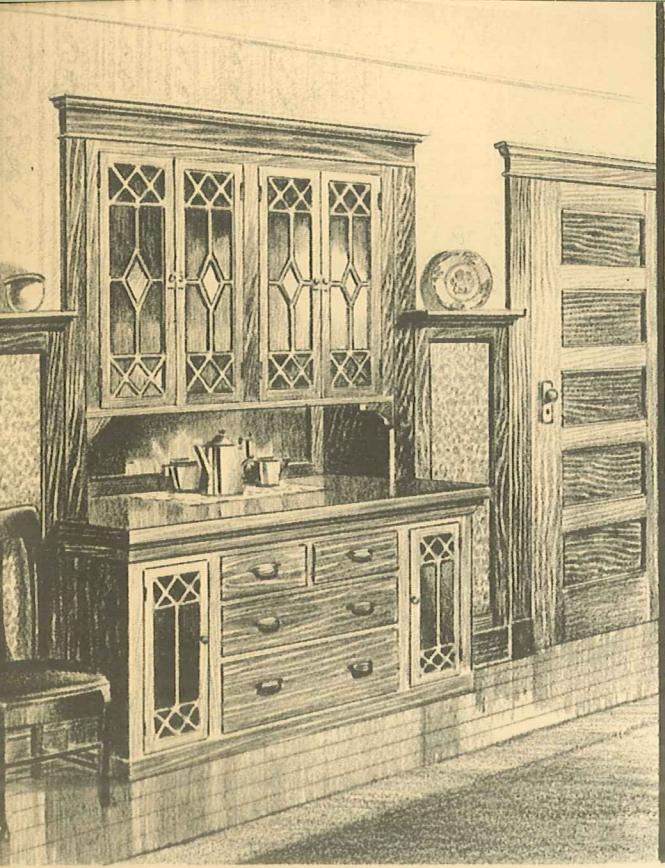
combination with other types of siding and other materials, also has been used successfully in varying and intensifying the interest of the structure.

You, no doubt, have noticed how wood shingles add to the charm of a house. They give a cozy, homey appearance that "colder" materials cannot hope to equal. Even the jarring features of the poorly designed home are softened, made mellower, by shingled walls. They have an interesting texture and variation of color that has a warming effect, appealing not only to the inexperienced observer, but also to the most meticulous designer.

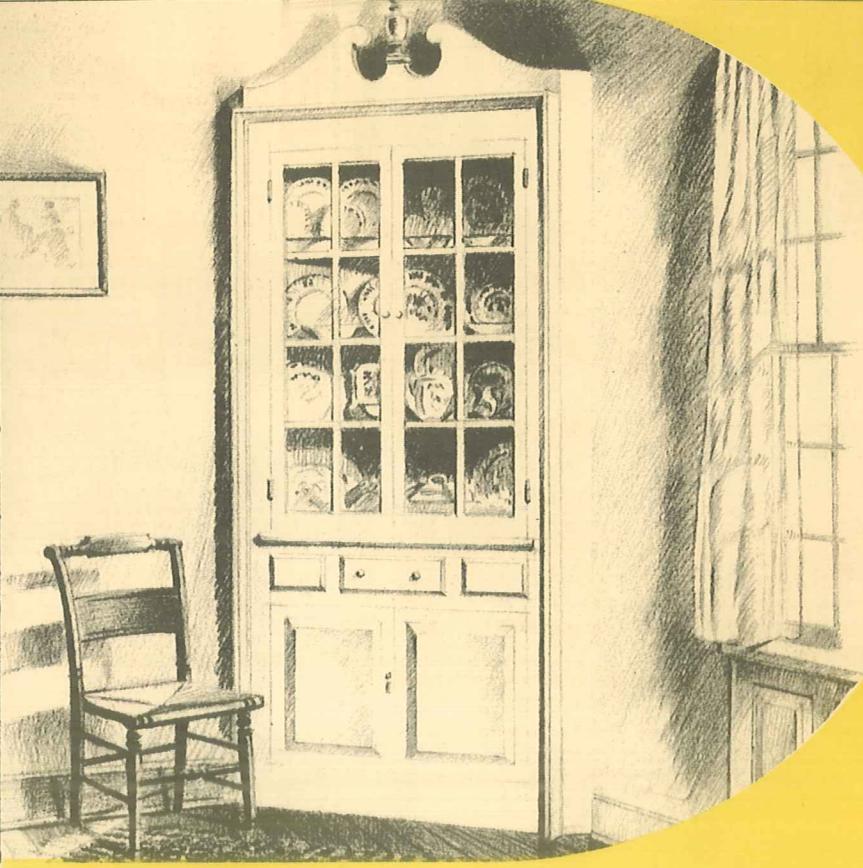
On the practical side they also have much to their credit. Age enriches and deepens their colors without wearing them out. They require little attention; and refinishing is unnecessary; however, if desired, they can be stained in many attractive colors. Of late years stained shingles have become very popular. They can be had in attractive colors which harmonize with Nature's surroundings. Edham stained shingles are of this type.

It is surprising how relatively insignificant things help to enhance the appearance of a house. You will note how the substantial chimney of generous proportions becomes an unobtrusive but decidedly decorative note. It pleases the eye and suggests interior warmth and comfort.

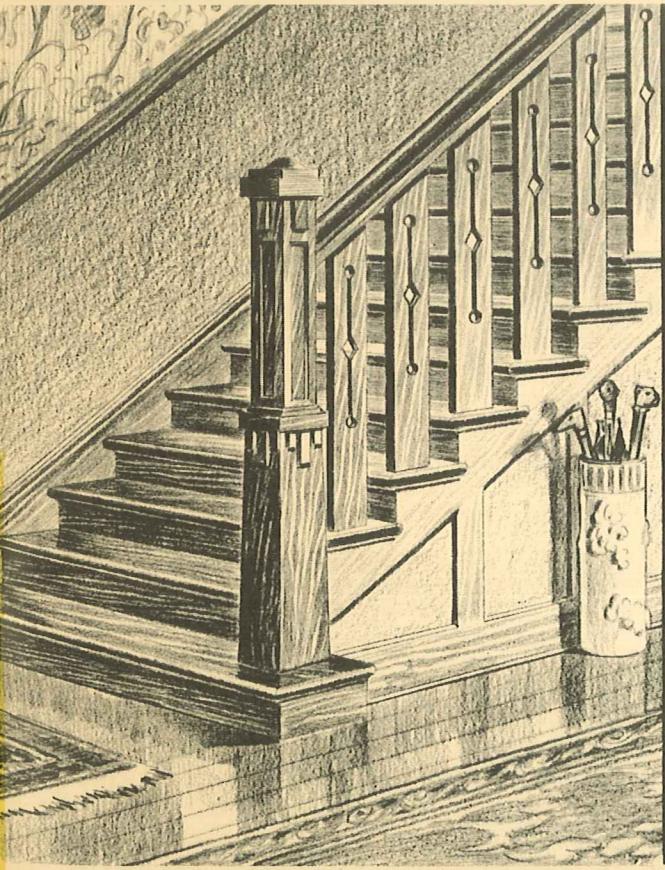
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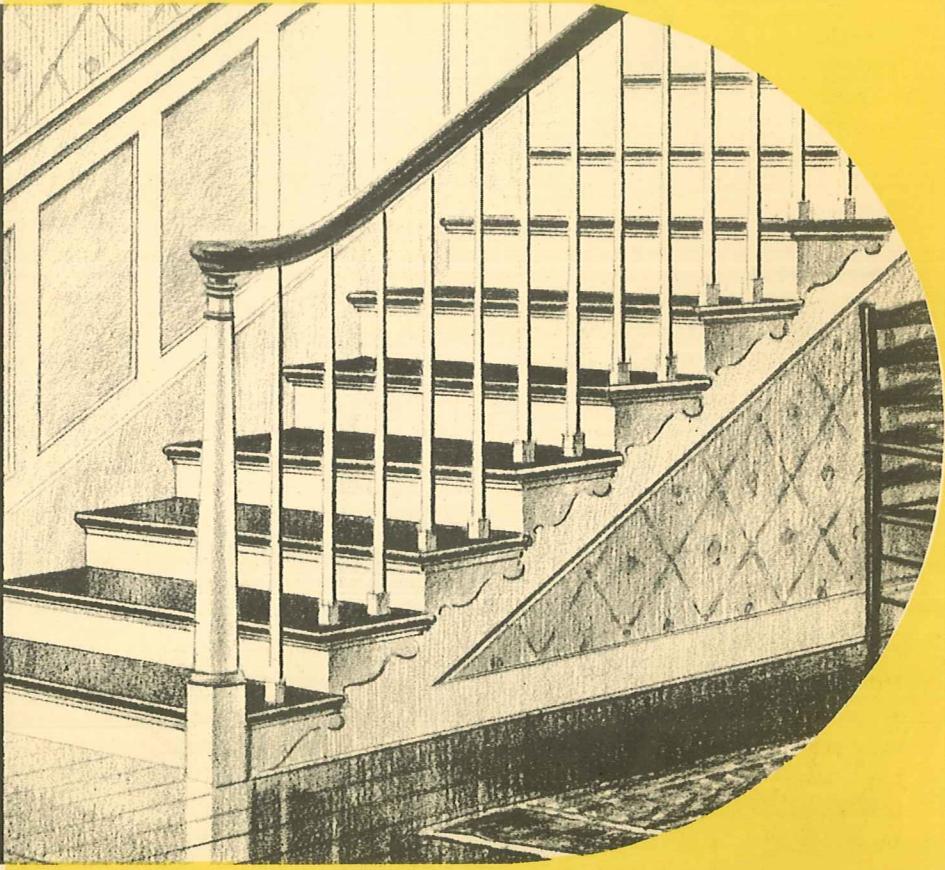
• This is a sideboard of the "craftsman period". Distinguishing features are heaviness and bulkiness that seemed to fill up and weigh down even large rooms. There is a gloominess about this type of casework that makes it very hard to live with.



• The craftsman sideboard has gone without the expression of a single regret. This corner cupboard of stock design has transformed the dining room from oppressive "craftsman" to light-hearted early Colonial. The plate rail and meaningless paneled effect also have been removed, so there is much less dusting to do. You can picture the hostess entertaining with pride in this "new" dining room.



• Is this hall and staircase familiar to you? It was the "latest thing" in design a few years back and now it is the last thing many owners want. This style of woodwork was a foiled attempt toward greater simplicity than prevailed in the Queen Victoria era.



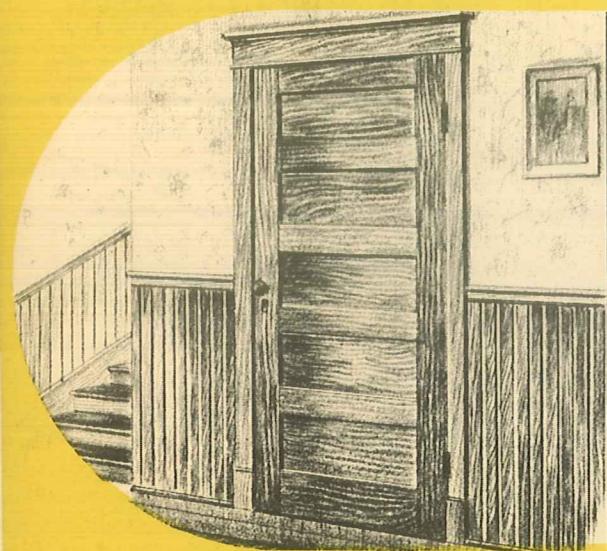
• Today it is possible to buy many attractive staircases in stock designs such as the one illustrated here. Its grace and beauty will add much to the charm of any home. The painted wood paneling and risers in soft ivory furnish a rich contrast with the mahogany color of the rail and treads.



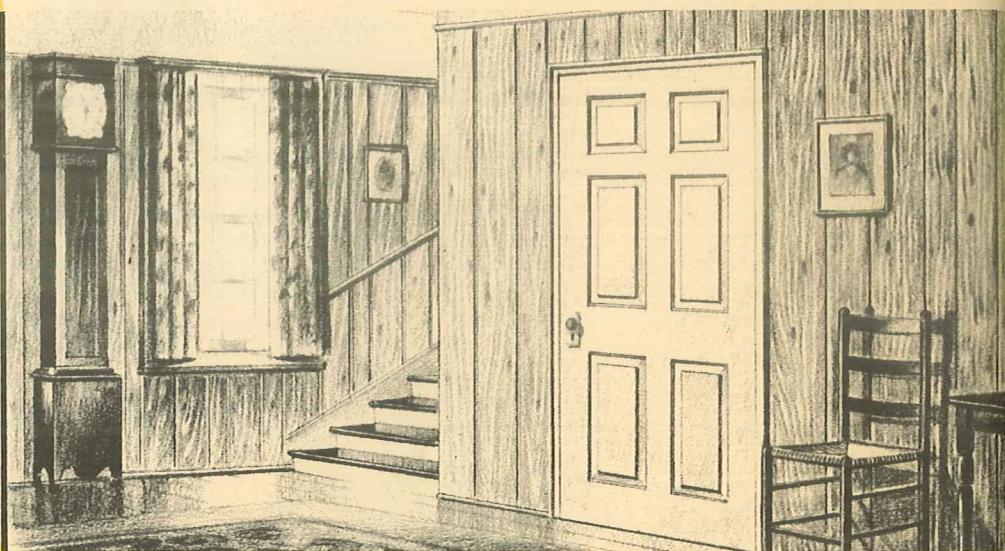
• Gingerbread properly belongs in the dining room but not in the form of woodwork. In this case the appearance of two rooms is spoiled and dated by the useless colonnades.



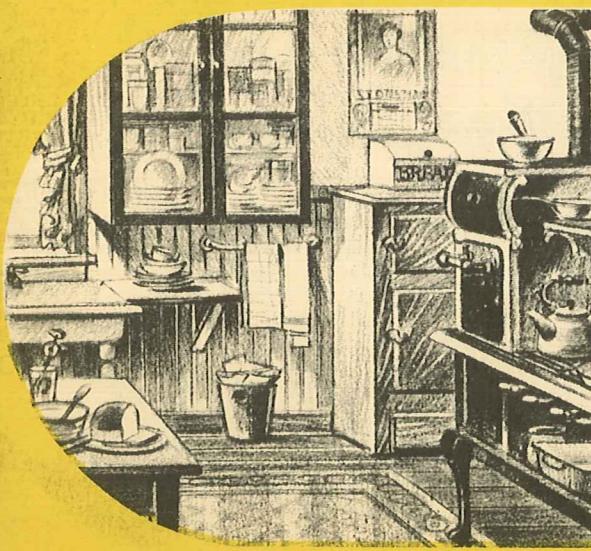
• The colonnades are gone, never to be missed. The new arched opening with its simple woodwork is not only beautiful but unobtrusive as all good woodwork should and can be. It seems to add to the spaciousness of the two rooms, which is quite a point in its favor for the small home.



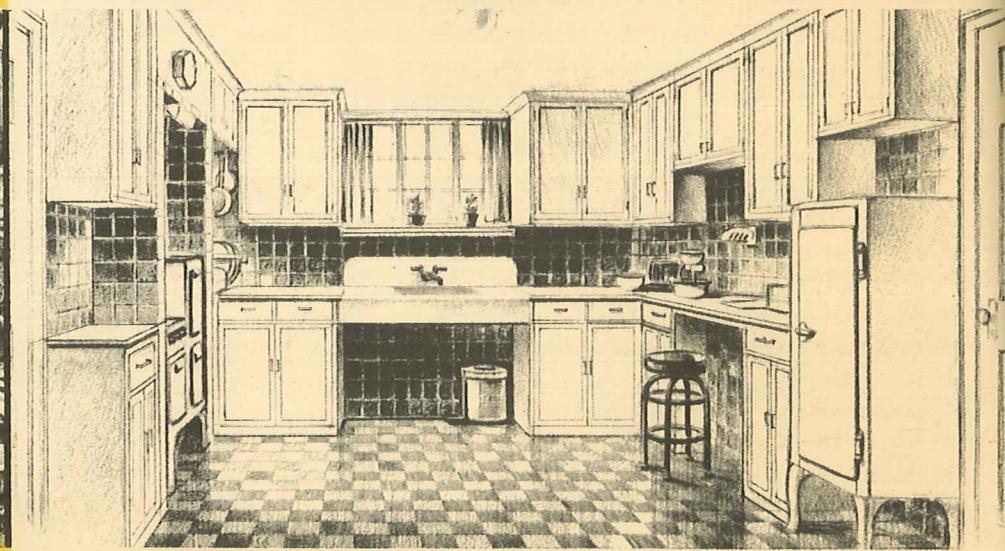
• A wainscoting made of "beaded ceiling" stained a light orange color and a five-panel door made of wood and grained to imitate wood are a familiar sight—no one wants them now.



• Here is an example of wood used artificially to improve the appearance of the hallway on the left. The paneling of knotty Genuine White Pine boards in random widths is stained a light nut brown. The door—a stock design of Ponderosa Pine—is enameled in cream color. Pine paneling was extensively used in Colonial days.



• This kitchen is out-of-date, inconvenient—wasteful of time and energy. It was designed in the days when the housewife was supposed to devote her whole day to "keeping house."



• In making the plans for this remodeling job the designer gave consideration to the various working centers—food preparation, mixing, cooking, serving, and cleaning up. The equipment was placed with relation to the sequence of the work. Adequate storage space adapted to the articles to be stored and placed was planned.

Modernizing the Home

Continued from page 18

From the standpoint of appearance, *removing* sections and blocks of materials from an old unsightly house may be more of an improvement than *adding* to it. Useless ornament which has no purpose is best removed. By referring to some "before and after" pictures of home exteriors in this booklet you will have a striking example of what is meant. Reducing the size of overhanging eaves and simplifying cornices is one of the most effective ways of making an old house attractive. Overhanging eaves originally were placed on houses to protect them. It was thought that they would serve as effective rain barriers to the open windows below. But since then it has been discovered that their protective function is minor and unnecessary. Perhaps in tropical climates (which, by the way, were the design source for the bungalow of wide eaves and extended roof) it might prove advantageous to have such wide "awning" eaves over windows. This type of structure would permit opening of windows even in the wettest of weather. However, in most parts of the United States where rain usually is accompanied by chilling winds, the awning eave is no more useful than the fifth wagon wheel.

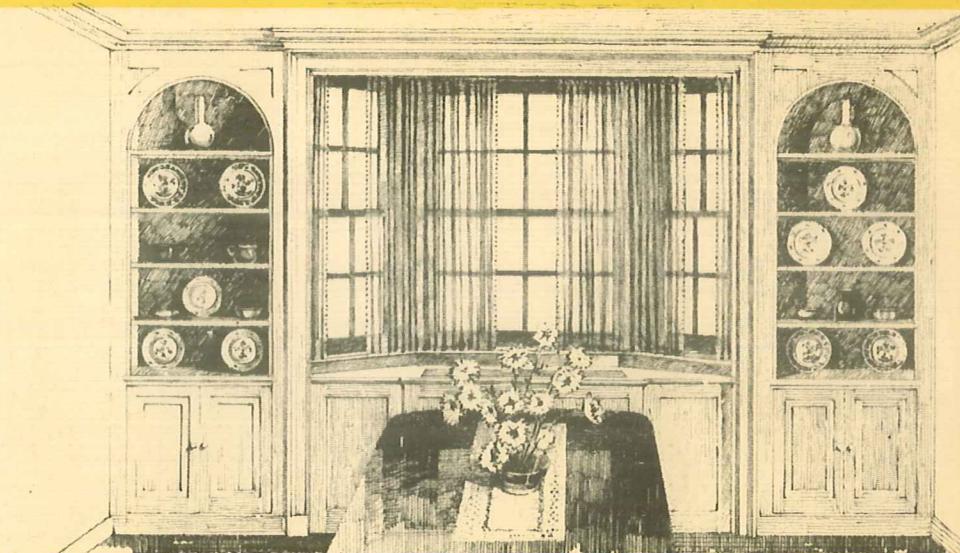
A good rule to follow in considering house ornament is: "Has it a purpose, does it perform a function or seem to have a structural meaning? If it does not, then it does not belong on the house".

Beauty truly has its practical side. Only occasionally is a house remodeled solely for aesthetic reasons, although in this age, when new houses of pleasing architecture are the rule rather than the exception, beauty has a decided market and rental value.

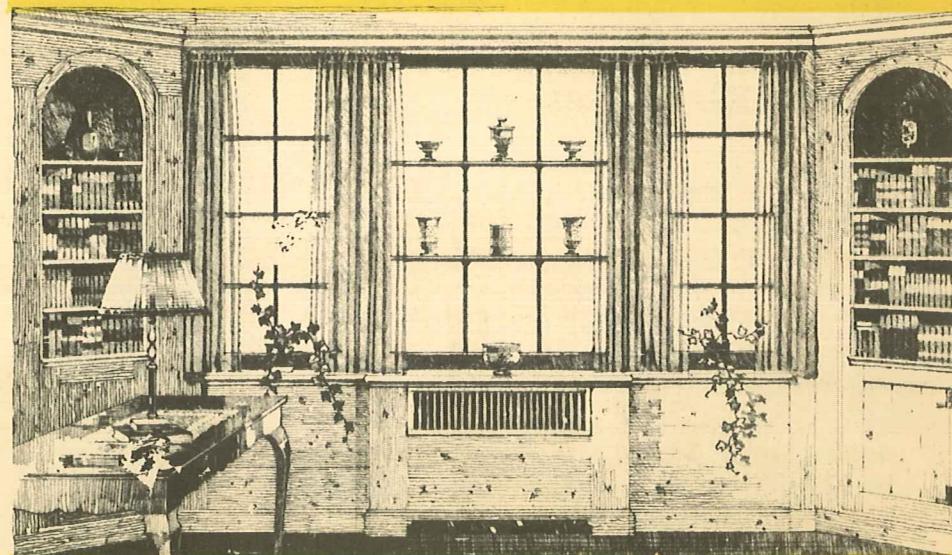
Look again at the "before and after" houses on pages 16 and 17. Let us forget for the moment the very important and practical interior changes and additions made to these homes during the remodeling process. Let us say that the changed exterior is the sole net result.

Do the renewed homes look as though they would rent more quickly and at a better rental

Continued on page 22



Dining Room Bay Window. Frequently the house owner has need for additional space for dining room dishes or for some valuable pieces of china or glass which have high decorative value. In the end of the room shown, two cases have been designed for this use. The cupboards at the bottom are for storage. The new cases and the front of the radiator enclosure under the window are of wood, painted.



Living Room Bay Window. For living rooms lacking book cases it is usually possible to utilize one or more corners of the room for a corner case with bookshelves and storage cupboards. Where two cases can be set in opposite corners as in the Living Room above, it gives a unified effect to the entire end of the room. In this case all wood work in the corner cases and the radiator enclosure under the window is of natural knotty pine.

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price than the old ones? Which would more readily attract a buyer: the old, or the altered structure?

There is no question but that the renewed houses are infinitely more desirable, as you can easily learn by checking with your friends. Ask them to make a choice between the two sets of pictures and you will soon learn the general appeal value of each.

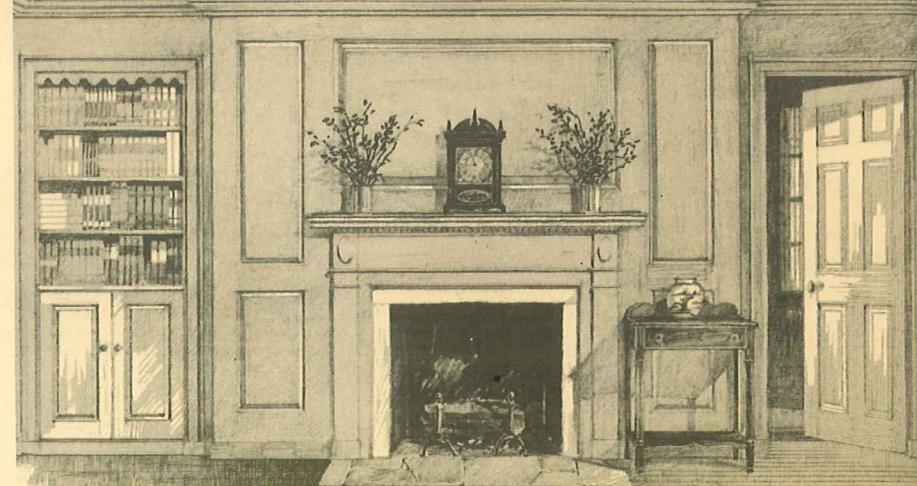
In discussing home exterior alteration first, it was not meant to imply that it should have the home owner's first consideration. Perhaps it should not be considered at all if, at the present time, the owner's available or borrowable funds are limited to repair and modernization work which is more vital to the family's comfort, convenience, and well being. Of course, consideration of the inside and outside cannot always be divorced. The addition of rooms and living porches, the changing of interior partitions and arrangement—in fact, interior modernization in general affects the appearance of the exterior to a great extent. In the hands of a capable architect an interior modernization job cannot help but have an appealingly beneficial effect on the appearance of the exterior of the house. If the architect is permitted to go just a step further in his planning so that he may consider the house as a whole, the resulting plan, even though the owner can carry out but a small part of it at the moment, will be a splendid guide and inspiration for the future—as well as a good investment. Many home owners have wasted much money in half-hearted attempts at modernizing. As a result, their step-by-step "economy" has proven exceedingly wasteful.

Interior Alterations

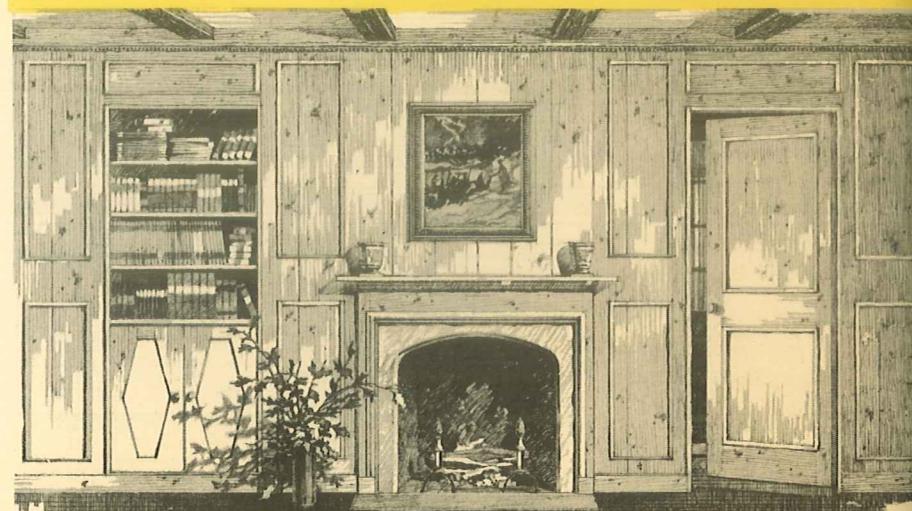
Although it has been mentioned before, it now deserves especial emphasis. No home should be completely modernized unless: (1) It is structurally sound or can be made so at little expense; (2) its proportions and roof lines are such that it lends itself to sound architectural treatment; (3) the neighborhood is such that the remodeled house will appear in its proper environment rather than out of place within the block.

Let us see what can be done to the interiors of homes to improve them. The controlling factors which should determine this follow:

1. Amount of additional space required in the living, working, sleeping, personal and storage areas.
2. Rearrangement of partitions, rooms and fixtures to reduce waste space and make it more usable and better suited to the needs of the family.



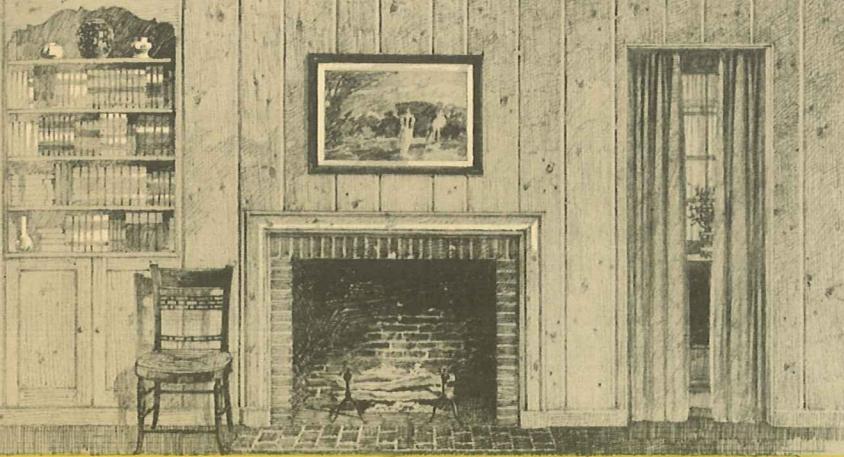
• New mantel and painted wood paneled wall carried across the fireplace end of the room. The other 3 walls could be done in paneled wood, painted and enameled on linen applied directly to the plaster, or could be wall-papered.



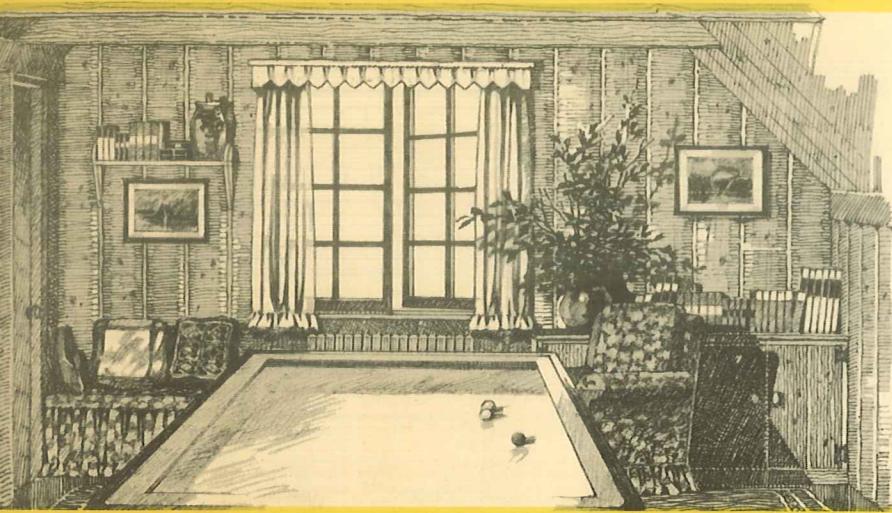
• In this treatment of the old room, natural pine sheathing with tight knots has been used. The joints in the sheathing are formed so as to show either plain or V-cuts or wider, flat incised mouldings in the finished wall.



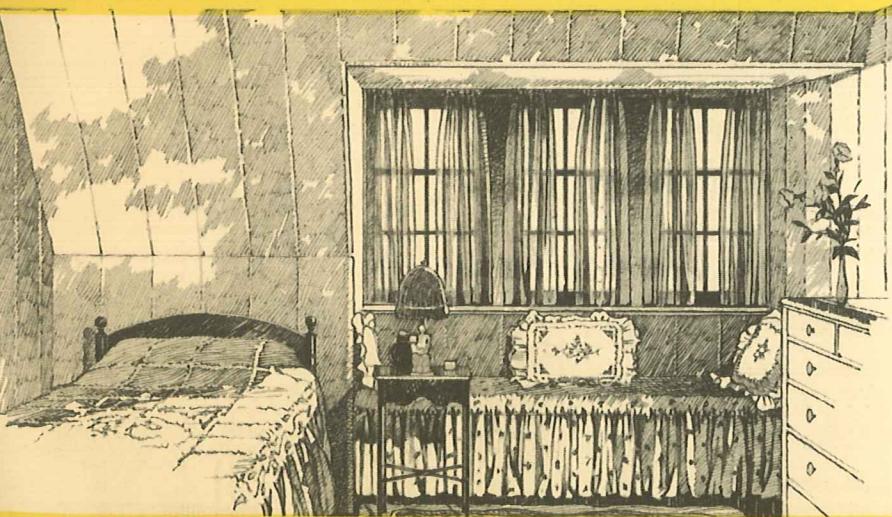
• A new mantel and painted wood paneled wall above. Smaller opening and door to Dining Room or Hall. The old closet space has been made over into book shelves with a storage cupboard below.



• This is another natural wood treatment that can be used in doing over old rooms. The walls are of natural pine sheathing but are laid with a tight hair-line joint. The small half-round moulding is nailed to the face of the sheathing.



• In this attic a comfortable game room has been formed from an attic storage space open to the ridge. The framing of the walls has been covered over with log siding. While the tie beams of the roof have been left exposed, plain wood sheathing has been used to cover up the rafters. The floor is of matched Douglas Fir boards, painted, and covered with a rug. All new wood facing is left in natural color and treated with wax.



• In a sloping attic the exposed framework of the roof may be covered up with many varieties of wood sheathing or plywood and may be either painted or finished to show the character of the material used. In this attic bedroom, the walls and ceiling have been covered with wide V-joint wood sheathing painted a soft Viridene yellow. The chintz-covered, built-in seat under the triple windows is wide enough for use as a day bed.

3. Changes to make the interior more convenient and easier to care for.

4. Changes to make the interior more comfortable and weather-proof.

5. Replacement of wall, ceiling and floor surfaces and woodwork because of their poor condition or because of excessive cost and time in care and upkeep.

6. Revision of the interior for purposes of improving appearance or bringing it up to date.

7. Improvement to create pleasanter surroundings, so necessary for happy home life and proper environment.

Let us discuss the foregoing points to throw light on the specific problems which the reader may be facing.

There are two ways of enlarging a house to obtain needed space or rooms. One is the obvious way of adding a wing, ell, or new sections.

The limiting factor here is usually the size of the lot. City lots are more often than not too narrow to permit expansion of the structure on the sides. The necessity for a driveway from the front is also a limiting factor. Moving the entire house to a side of the lot is an expensive operation, especially if it entails considerable excavation and new foundation walls. Additional ground can often be purchased from one or the other adjoining lot owners, but this may not prove a happy solution if it brings the new addition too close to neighboring homes. On wide city lots and in the country where ground space is available and not expensive, expansion of a house on the sides is usually no problem and often the best solution from the standpoint of appearance.

Because of the depths of city lots, expansion of a house toward the rear is usually possible. Toward the front a limiting factor where building restrictions prevail is the prescribed building line. In many cases houses already are built to this line and to add to the front of the house means moving the entire structure. Ordinarily this is not as expensive as moving a house entirely off the foundation toward the side of the lot. However, it is an expense item which should be avoided if possible.

In planning additions to a house, such matters as exposure, sunlight, and orientation should have the same consideration as though a new house were being planned.

Fortunately there is another method of obtaining additional usable space in a house already built. And that method is to use the waste space which so frequently is found in homes built during the past. Large halls, reception rooms, pantries, alcoves, and

Continued on page 24

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dens very often have outgrown their usefulness while the changing needs of the family call for larger living rooms, kitchens, bathrooms, and more bedrooms. Often, merely by moving partitions, a family's changed room requirements can be met. Structurally, this frequently is possible, although earnest attention should be paid to the proper support of these changed partitions.

Attics and basements present interesting opportunities for obtaining additional rooms. These spaces in the majority of homes were designed with little attention given to their usefulness other than as catchalls for bulky items which have a way of accumulating in the average household. Now that basements are becoming cleaner and methods of damp-proofing, ventilating, sound-proofing, and heating are improved and readily available, this waste space deserves attention, particularly where the family is in actual need of more room, or where they are desirous of making the home more livable, usable, and attractive.

Also, now that efficient heat insulation is available and fairly inexpensive, unused attic space can be transformed into living quarters no less desirable than other parts of the house.

Another reason for remodeling—that of making the interior more easy to care for—is one that is deserving of consideration in this enlightened era, now that it has been conclusively proven that a home can be thoroughly enjoyable without being a burden.

Another form of remodeling is that of making the interior more comfortable and weather-proof. This often resolves itself into the addition of insulation, weatherstripping, and storm sash and doors, although it also should include attention to door and window frames and general tightening work. The fireplace, added to obtain greater comfort on chilly days, often turns out to be a general motive for new interior woodwork, bookcases, paneling, and other quite attractive features.

The replacement of wall, ceiling, and floor surfaces, and of woodwork because of their defective condition is an obvious reason for remodeling. The ease with which such new surfaces are cared for and the savings in upkeep costs are factors that make this type of replacement worthwhile.

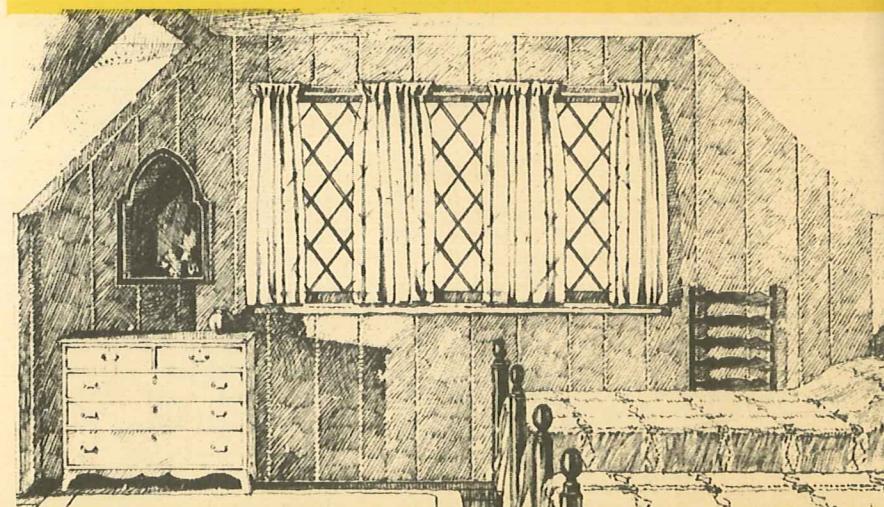
The revision of the interior for purposes of simplifying and improving the appearance, or of bringing it up to date, is often considered as purely an aesthetic reason for remodeling. But, like exterior changes in architecture, this type of renovizing, if wisely done, has a distinct market and rental value. It is primary protection of the standing investment and good in-



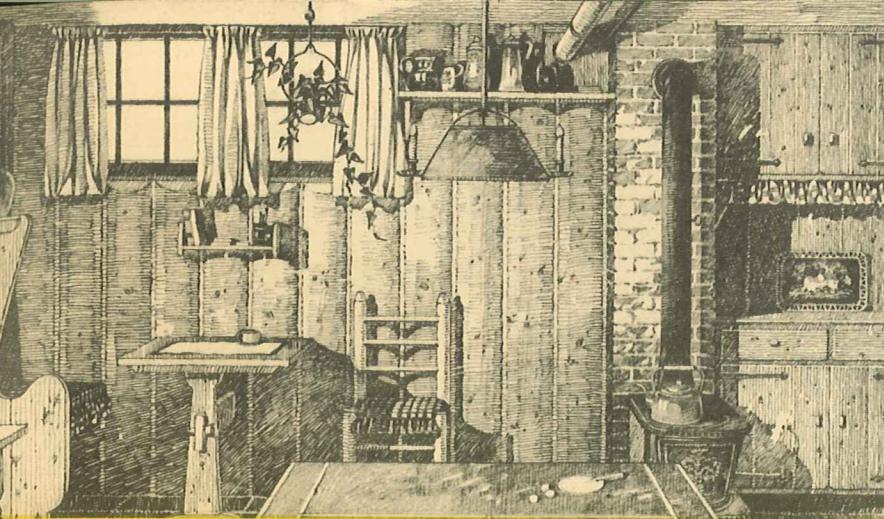
The Boy's Castle. For a new bedroom planned for a boy, almost any unused attic space, if of proper size, can be made over into a delightful sleeping and play or study room. In this bedroom the walls are of natural wood sheathing, using a painted finish for the bunk bed and storage cupboards, and for all doors, sash and trim.



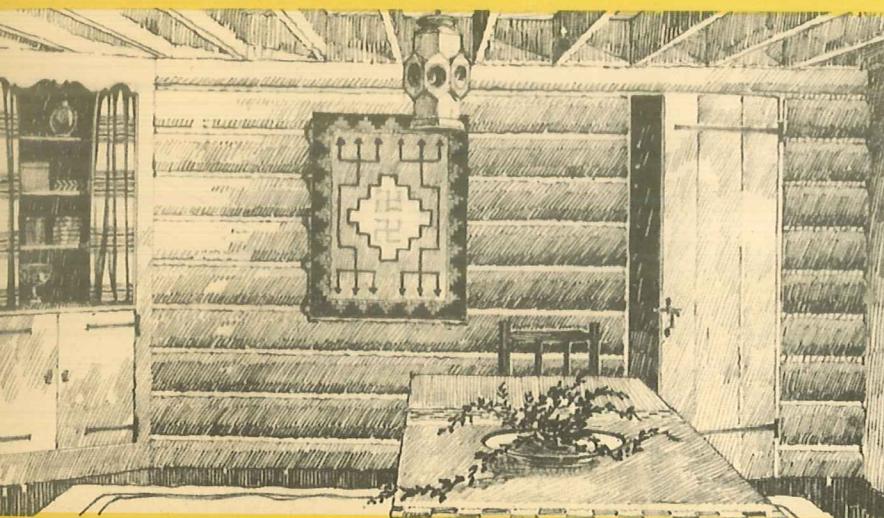
A New Boudoir for Jane. For a proposed girl's bedroom in the attic of the modernized house, square or rectangular panels of Nu-wood, either in natural color or painted a soft, pastel tint, make a most pleasing surface treatment for walls and ceiling. In this attic bedroom a handy book case and study desk has been built into the room.



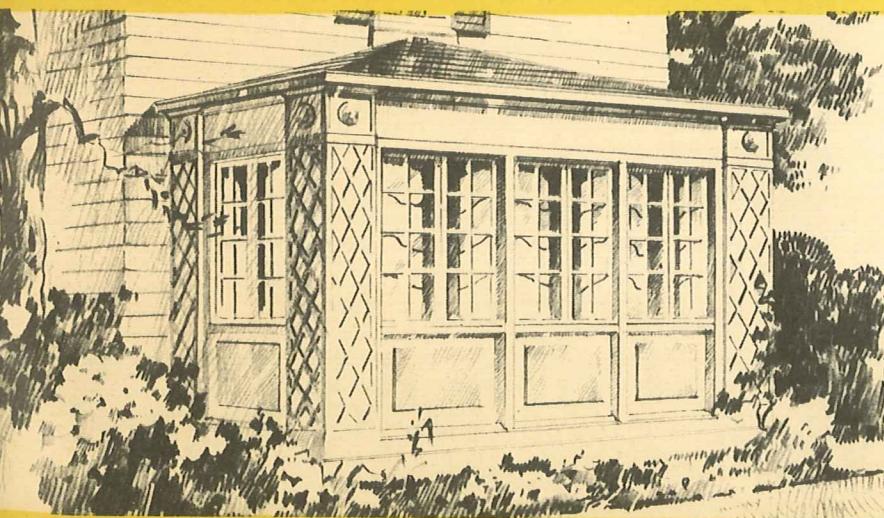
The Twin-Bed Room Upstairs. This attic bedroom was designed to provide an added sleeping room for two boys or the unexpected guests. The vertical walls are of wide V-joint sheathing finished natural, with sloping walls and ceiling and dormer window recess of plywood treated with very rough texture paint. Areas of this character are easy to reclaim with very little necessary except good taste in furnishing.



Roughing it—in the Basement. The popularity of comfortable recreation rooms in basements such as the one shown is due to the fact that they afford a retreat for occasional "breakaways" from the routine of living. The whole air of such a room with its log siding walls, seat nook and utensil cupboard and counter of natural knotty pine, calls to mind the ease and informality of a wilderness cabin—no further away than the bottom of the basement stairs.



A Cabin—in the Basement. There are few basements in which a small space cannot be set off and finished up as a cozy spot for games and recreation. For such a purpose many materials in wood are readily available. In this room natural log siding has been used with a corner cupboard in natural pine for the keeping of games, etc. Young people like to get away by themselves and this is an excellent way to isolate their noise.



Living Porch. If there is but one porch to the house, its full development should include provisions for the seasonal interchange of screen panels or sash, as required. In the porch shown, the bottom wood panels and the lattice panels over wide matched sheathing are in place the year round, while sash for winter use and screen panels for summer use may be installed or removed at will.

surance for ready sale if such ever is contemplated.

The "before and after" pictures of interiors in this booklet are indicative of the remarkable transformations that can be made in home interiors through judicious planning.

The "before" pictures, in all cases, show interior "fashions" which most of us have outgrown in our return to simplicity and our desire for more direct methods of expression.

In remodeling a home for certain specific reasons, there often is achieved a lasting benefit which was not even considered at the time of planning the work.

That benefit is one resulting from a changed environment through the creation of more pleasant and more livable surroundings within the home.

Who definitely knows the value, can state it in words, or can translate into terms of dollars and cents, of a cheerful, comfortable home?

Who can say exactly what effect such an improved environment will have on the lives of growing children?

No one can say exactly, but it is safe to assume that the effect on children and adults alike of a pleasant, livable home and a resultant happy home life can be a lasting one.

Before a home is remodeled, if a complete job is to be done, it is best first to check over the various rooms to see how they measure up to the standards of the changed home. Some little things may thus be discovered which require changing. These can be done more advantageously and inexpensively at the time of general remodeling than later.

The following brief discussion and check list may prove helpful in making such a preliminary inspection.

The Basement

Is the basement well lighted and ventilated? Is fuel storage space inclosed? Is a storage closet for fruits and vegetables required? Has consideration been given to building a recreation or play room? Does the husband or the boy need a workshop with bench? Is a dry trunk storage room provided? Are there racks for garden tools, screens, and storm doors? Is there an adequate, well lighted laundry? How about a hobby room for some member of the family?

The Kitchen

Is the kitchen too large? Too small? Is the equipment located with relation to the sequence of work in

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preparing, cooking, and serving food and in cleaning up the dishes and utensils? Is adequate and handy storage space provided for foods, utensils, and dishes? Is there space for a breakfast nook and is one desired? Is there a handy broom, mop, and cleaner closet? Is the pantry convenient and is it used? Is the rear entrance convenient? Is the natural light sufficient and are these sources properly placed? What is the condition of the floor, walls, ceiling, and woodwork?

Dining Room

Is there ready access to both living room and kitchen? Is the room too large? Too small? How about light and ventilation? Is there ample storage space for dishes, silver, linen, etc.? What is the condition of floors, walls, ceiling, and woodwork? Are woodwork and fittings outmoded?

Living Room

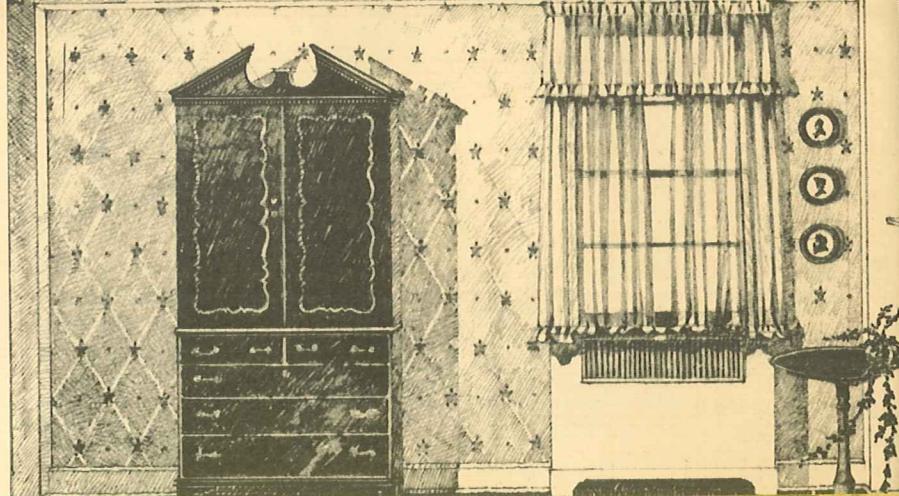
Are windows grouped for outlook and unbroken wall space? Do unnecessary doors break up the wall space? Is there an adjoining living porch? Does it darken the living room? Is the room too small? Are built-in bookcases or furniture desired? Does the front entrance interfere with privacy? What is the condition of the floors and woodwork? Are they attractive? Is the mantel pleasing? If the walls are in poor condition, have you considered pine paneling?

Bedrooms

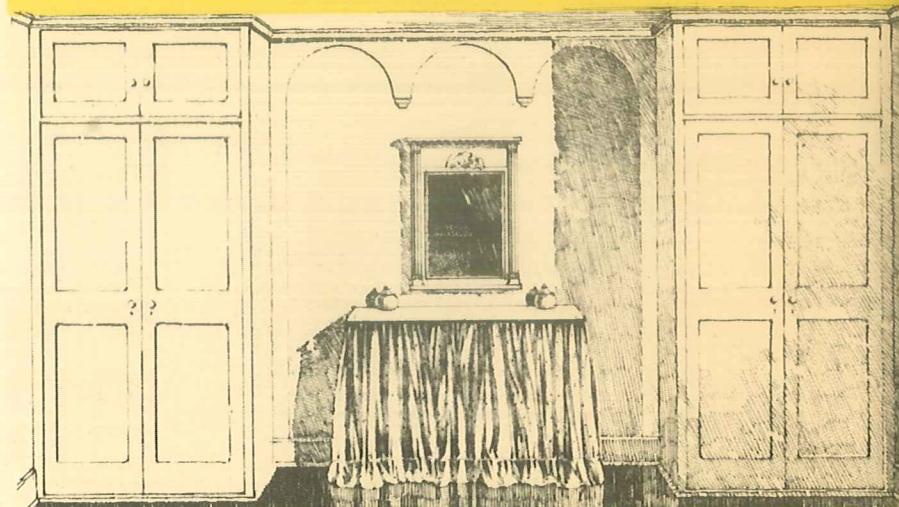
Is there a sufficient number? Are they large enough? How about cross ventilation? Are the bedrooms accessible to a hall? Are they close to the bathroom? Are closets adequate in number and size? Are they equipped with rods, drawers, hat shelf, shoe rack, tie rack, hat stands, shoe-shining drawer? Are floors, walls and ceilings in good condition? Is the wood-work attractive? Are the upstairs bedrooms hot in summer—have you considered insulating the roof?

Bathrooms

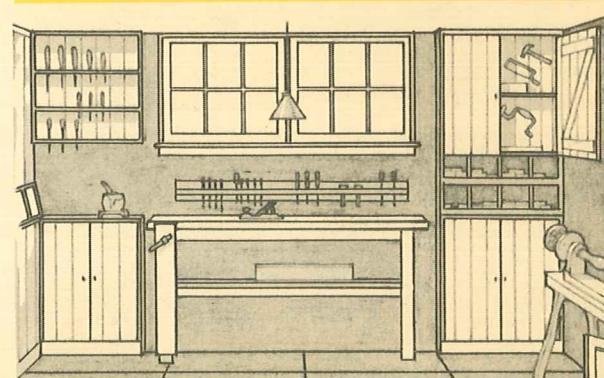
Are they adequate in size and number? Are the medicine cabinets ample in size? Would built-in shelving, cabinets, or clothes chute make the bathroom more convenient?



This Bedroom Goes Colonial. In modernizing, it is often desired to do over a bedroom so as to make it more in keeping with lately acquired new furniture. The bedroom shown illustrates how a very simple room has been given the character of an early 18th century Colonial bedroom.



Wardrobes Cost Little. Whether in a proposed new bedroom or in a small bedroom or child's room already in use, it is usually possible to add new wardrobes in two opposite corners, without seriously reducing the effective size of the room. In the small child's room shown this has been done. The space between the shallow cases is wide enough for a single or three-quarter bed if desired.

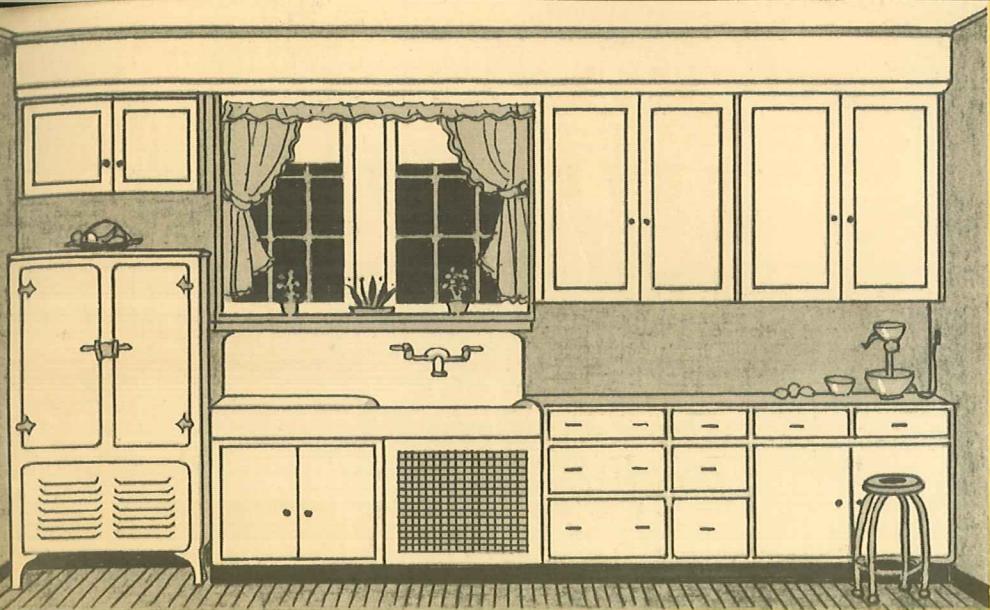


Hobby Room. In the room shown the tool racks and cases are of natural knotty pine. A small investment to keep the boy interested in useful things to do with his hands and a good way to make the basement useful.

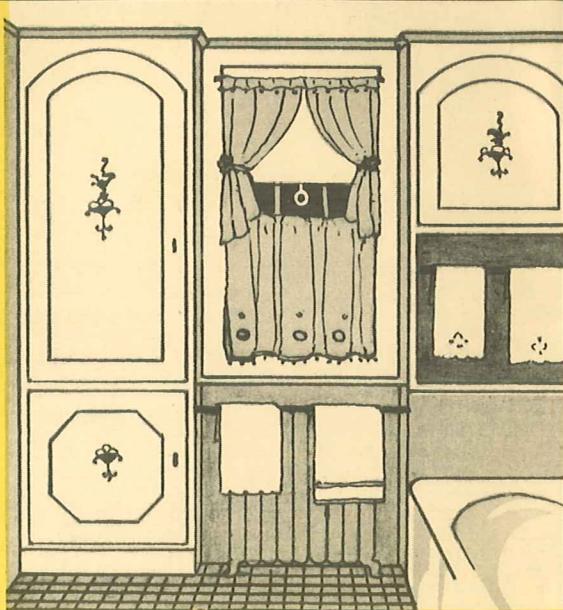


Linen Cabinet.

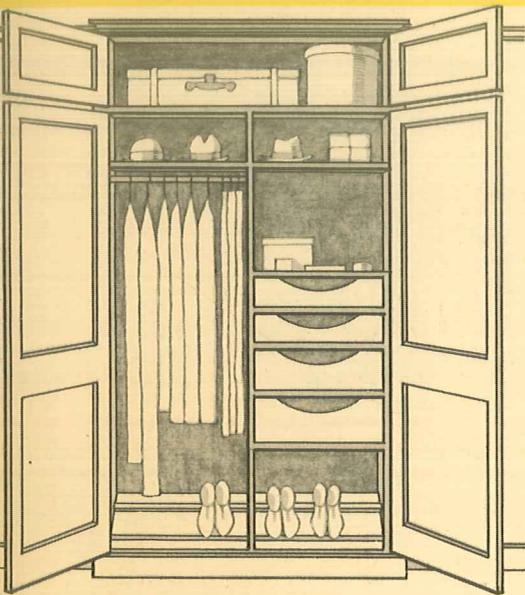
A wood case with doors providing space for soiled linen hamper and shelves for towels, sheets, pillow cases, etc. The upper section is designed for blanket storage. No house can have too many of these storage units.



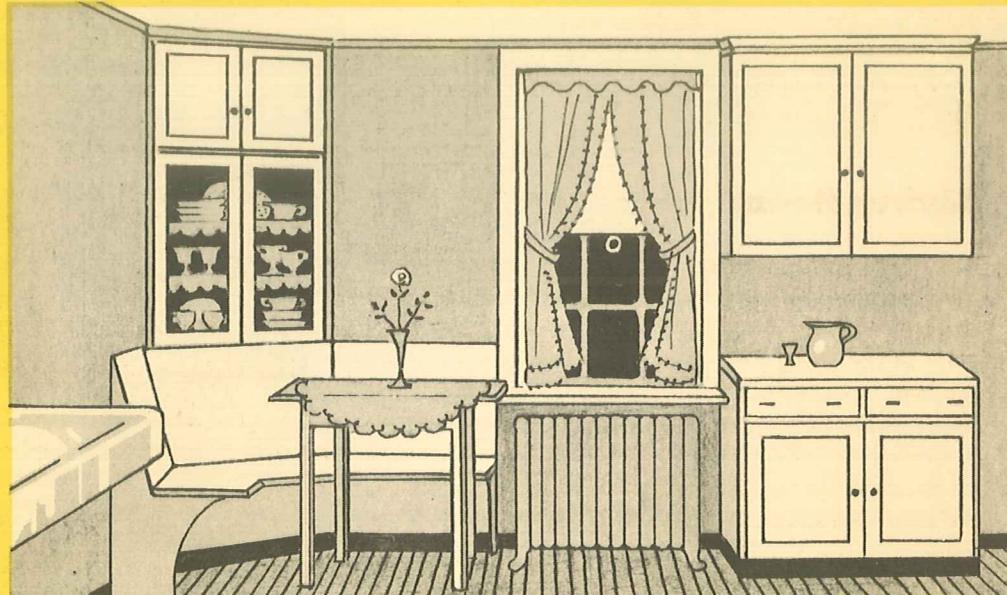
Twice the Work Space. The sink wall of an old kitchen thoroughly modernized by the addition of counter and wall cases, and a utensil case and removable open grille under the sink. Part of the space over the new refrigerator has been utilized for a new storage case.



Easy to Install. The end wall of a modernized bathroom with shallow wood cases at each side of the window for the storage of additional towels and other bathroom needs. A shelf has been built over the radiator with a towel rod for use in drying damp towels.



Makes Men Orderly. This arrangement provided hanging space, a shoe shelf, trays for linen and shelves for hats, boxes and packages. The storage case at the top with its separate doors, is for bags or suit cases and general out-of-season storage.



A Livable Kitchen. In this old kitchen one unused corner has been made over with a corner wall case for breakfast dishes and a three-sided wood seat. During the preparation of meals the table can be used as an additional working space as needed.

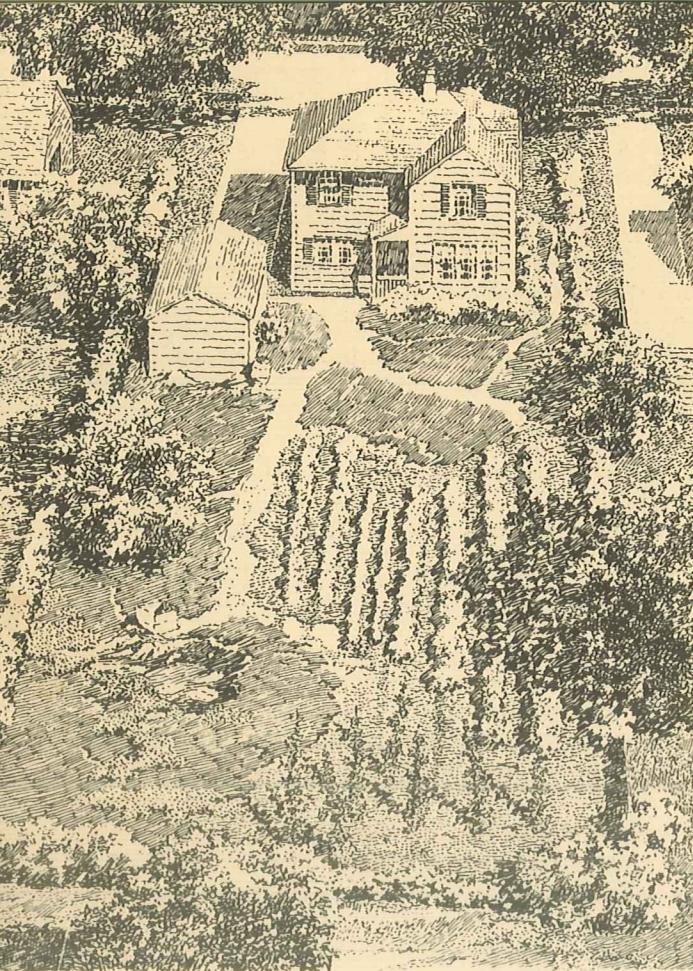
Attic

Have you considered remodeling it into bedrooms? Recreation room? Playroom? Maid's room? Guest room? If formerly remodeled, are the rooms attractive? Are they excessively hot in summer—if so, have you considered insulation?

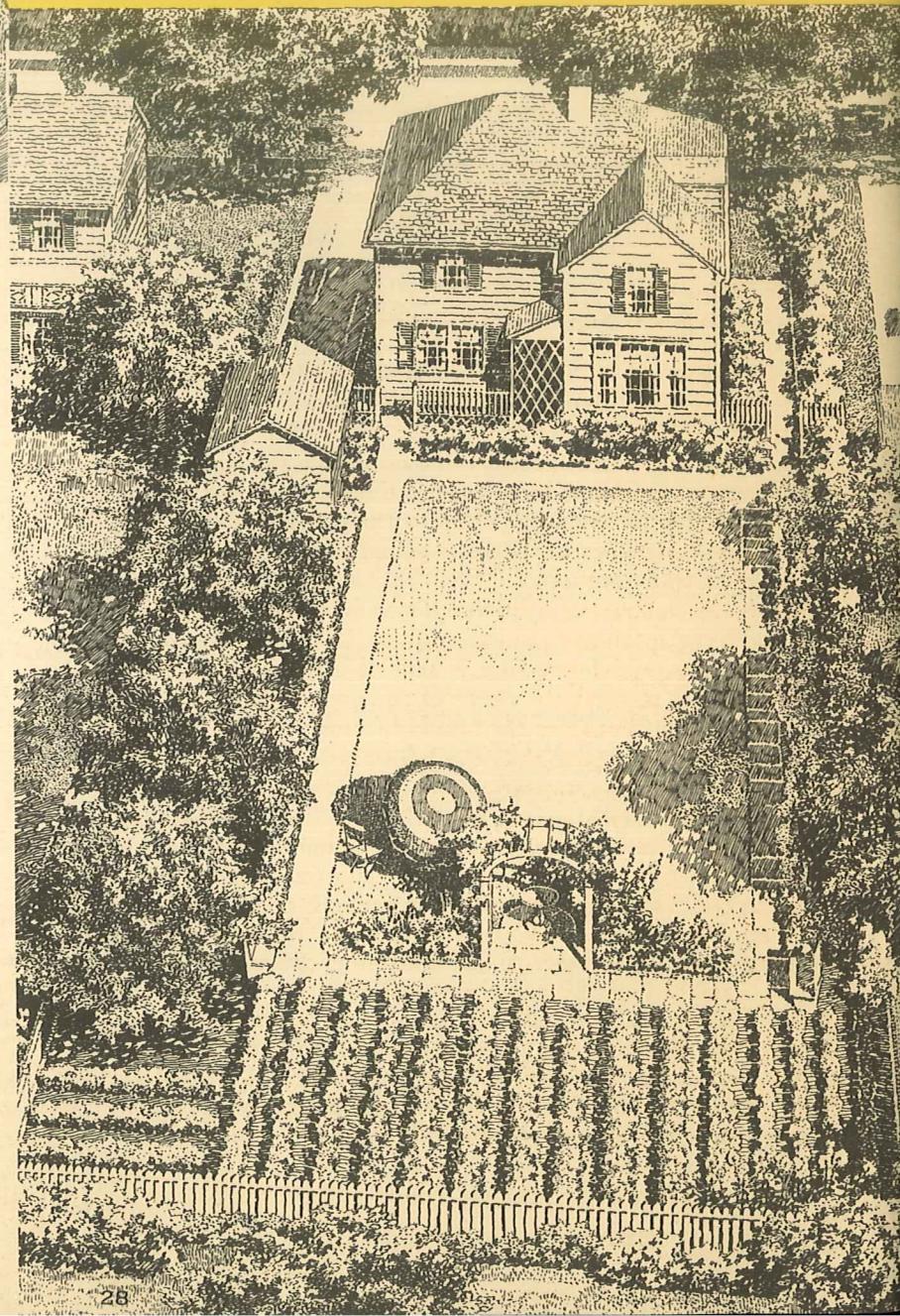
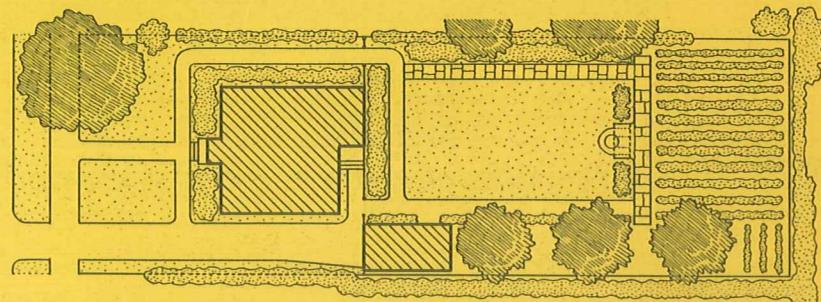
General

Are the stairways attractive and in good condition?

Does the entrance hall have a convenient coat closet? Are there linen and storage closets in the bedroom halls? Would a seat or chest in the halls be of service? Are there sufficient entrances to the home? Too many? Are the entrances conveniently placed? Have you considered the addition of a sun porch? Would a washroom and toilet on the first floor or in the basement be a convenience? Is the garage adequate in size? Is it excessively cold in winter? Is it equipped with shelves and cupboards?



DEVELOPING THE PLOT



If you were to keep books on a house the way a book-keeper or auditor does, you would charge off each year a certain percentage for depreciation. Thus according to the ledger your house would have no "book value" at the end of, say twenty or thirty years.

Fortunately, book value and sales value need not be synonymous. A house twenty years of age with no book value may sell at the same or higher price than its original cost.

One of the best ways to enhance the actual value of a home is to develop the plot with trees, landscaping, garden, and outdoor living room. As the planting grows, the property appreciates in value sufficiently to offset the book depreciation. If the house is sound, the neighborhood kept up, and other factors favorable, the owner will receive big dividends from his work. Whereas if the plot is neglected the appraisal value of the property may slump along with the book value.

To make the most out of a plot in money, beautification of homesite, enjoyment and use of the grounds, the development should be carefully planned when the house is being designed. The landscaping and planting need not all be put in upon the completion of the home but over a period of time as the income permits. Trees and slow growing shrubbery should be planted first to give them all the time possible in which to grow up.

A definite landscaping plan on paper should guide the progress of the development. It will also serve as a seasonal incentive and final goal toward which to work. To many owners the work will prove a pleasure instead of a duty. It may be also beneficial to health.

BUDGETING REPAIRS AND MODERNIZING

The well-kept home on which small sums of money are frequently spent for upkeep is less costly to own than the one on which little or nothing for care is expended. No surer proof of this statement can be found than in the records of those who keep books on the cost of home ownership.

As we previously have pointed out in this booklet, there is nothing that gives so much and takes so little as the well-kept home. However, if a home is outmoded, does not meet the needs of the family, or, if for one reason or another its upkeep has been neglected, it may require general overhauling and remodeling to make it entirely satisfactory and to restore it to first class condition.

The owner who hasn't been paying out much for home upkeep, when faced with a large prospective expenditure, may question whether he should go ahead without delay or give up all thought of such work. There is something to be said on both sides of this question.

The first consideration is the fundamental soundness of the home and its adaptability to modernizing. Let us cite for purposes of discussion a home that is structurally sound, which can be enlarged to meet the needs of the owner's family at a cost which can be met from the family income.

We might also suppose that the house is in a rather poor state of repair, that in appearance it is not desirable, that it lacks two rooms of meeting the family's present requirements. It is a five-room house whose original cost to build was \$5,000. In order to overcome its faults and shortcomings \$2000 must be spent. This may seem to the owner an exorbitant price to pay for fixing up an old house. Perhaps he may say to his wife that it would be wiser to sell and build elsewhere. But his wife, attached to the home and visioning the architect's sketches transformed into the changed home, advises further investigation. For one thing, she points out, the house in its present condition is not saleable or even rentable. If it should occur to her, she may add that the original home cost \$1,000 per room and that the cost of the two rooms to be added is only \$1,000 per room.

She might go further and explain that the transformed house

virtually will be a new home, better both as to exterior and interior. This can be achieved at a cost no greater than the price per room paid for the old home. Perhaps, if she has figured it out, she will show that the more desirable "new" house will cost only \$55 per month for three years, whereas they had paid more than that every month for 10 years on a home which at the present time is unsatisfactory for their needs.

Such logic as this would undoubtedly win over the most stubborn of husbands. Then the question of the family's ability to meet the payments would next arise.

"If we keep the car for several years instead of buying a new one, we can make the payments easily," is the reply that would be natural in many homes.

Perhaps at this point we had best drop the discussion, as we may soon find ourselves involved in a heated controversy.

But let us take another family faced with the same problem, but unable to meet the monthly payments incurred by the complete remodeling and repair job. Let us say that this family is open to advice. What is there to offer?

We would suggest to them that they would be sensible to plan their entire remodeling and repair job before starting a lick of work. We would advise that they go to a 4-SQUARE dealer and let him or one of his contractors estimate the repair or structural work that needed first attention.

Then we would advise that they budget the entire job and continue the work according to their plan as fast as their income allows. Needed repairs first; additional rooms as soon as possible; then the little touches which would make their home truly modern and new. Don't you consider that sensible advice?

But we wouldn't stop there. We couldn't in all fairness. For here is a family investing money in a home they may occupy for many years to come.

At the risk of "unselling" a remodeling job in which much of our 4-SQUARE lumber would be used, we would want to offer the following advice.

If we had the opportunity of talking to this family, perhaps we would say it in this fashion: "When you remodel your home, following the suggested plan, you virtually are getting a new home—better in most respects than your present one. The money you will spend will be much less than you would pay for a new home, but even so it is a sizeable sum."

"After such an expenditure you may feel obligated to continue living in this house for quite a few years. Therefore, we think it a sensible procedure that you consider this remodeling project as though it were a new home-building venture.

"You are tying yourselves down to this neighborhood. Look at it as though you were starting with a vacant lot and planning to build here. What about schools, churches, parks and stores? Is transportation good? Are there any local nuisances which make living unpleasant? How about the title to your property, the taxes, insurance? Are there burdensome special assessments?

"How about the location, its convenience, its effect on your children? How about the surroundings, the location of the house in relation to light, air, winds, and sunshine? How about changes or enlargements in your family?"

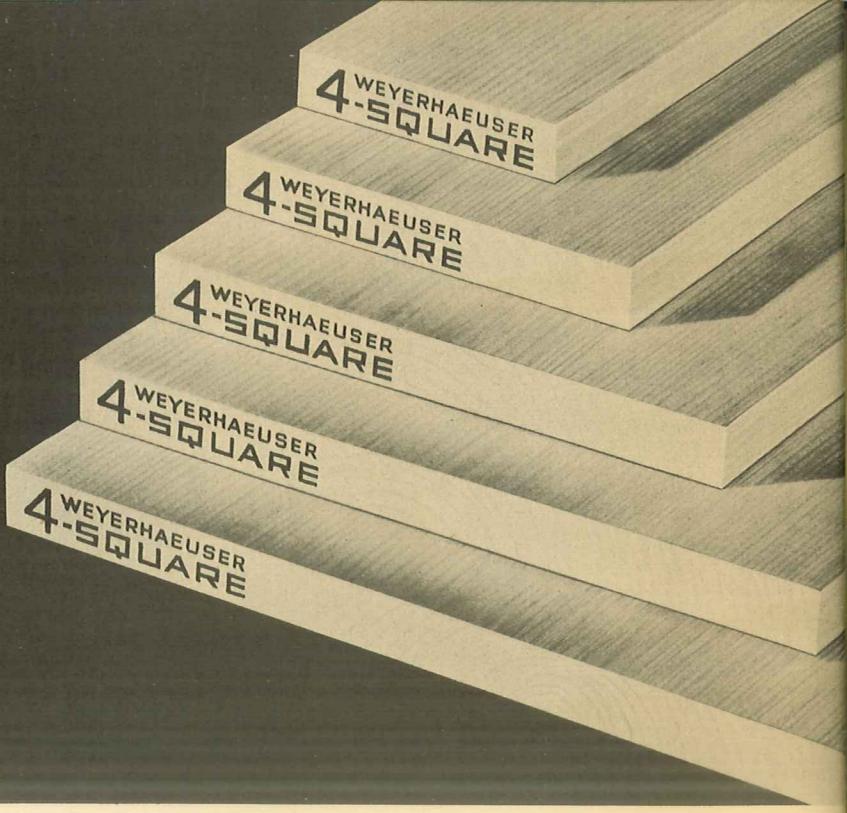
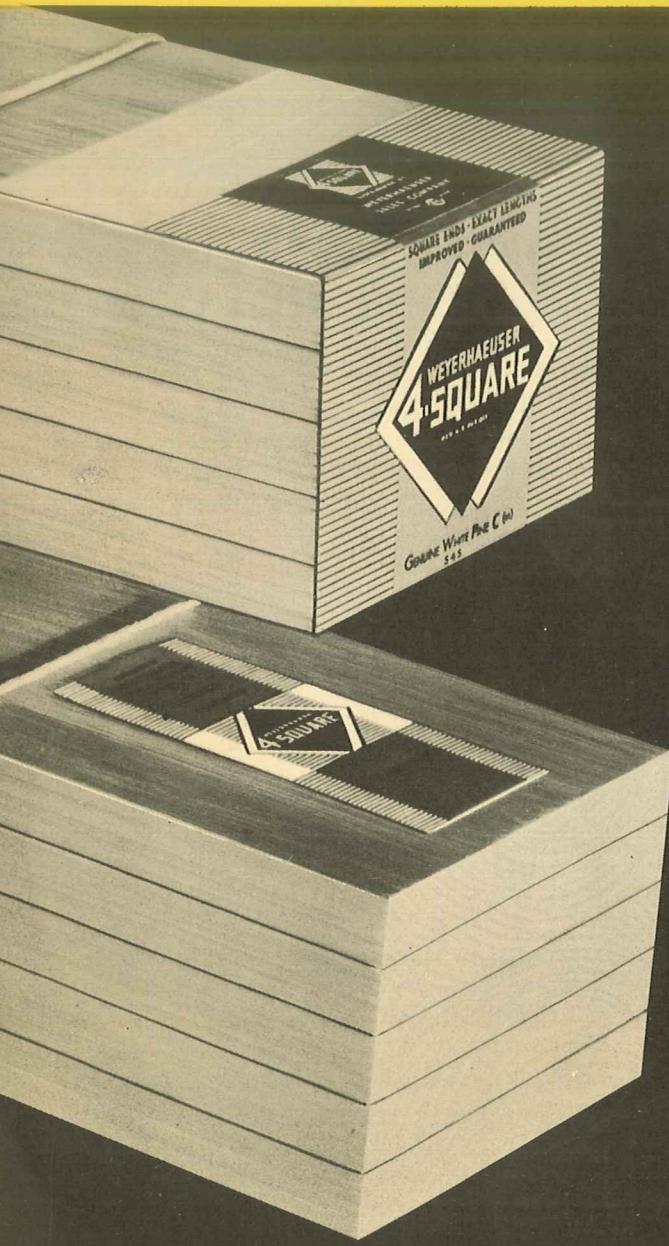
Thus we would talk just as though they were starting all over to build a home.

But if we discovered in our talk they were satisfied to go ahead, then we would earnestly urge that they plan their renewed home and conclude the work with all possible speed.

Weyerhaeuser

4-Square Lumber

For Modernizing, Repairs
and New Construction



The majority of home owners buy lumber very infrequently—some have never made direct purchases, have never examined the material closely, or compared species, grades, and brands.

To help the inexperienced buyer obtain definite required values combined with important lumber improvements, the 4-Square line of precision lumber was put on the market in 1928. It was identified and guaranteed by the maker, the world's largest lumber manufacturer. Its availability to buyers was made possible by distribution through selected 4-Square retail lumber dealers in cities and towns over the country.

Through identification and the authoritative advice of the 4-Square dealer, the inexperienced purchaser can buy a board or ten truck loads of 4-Square lumber with perfect assurance of getting exactly what he pays for.

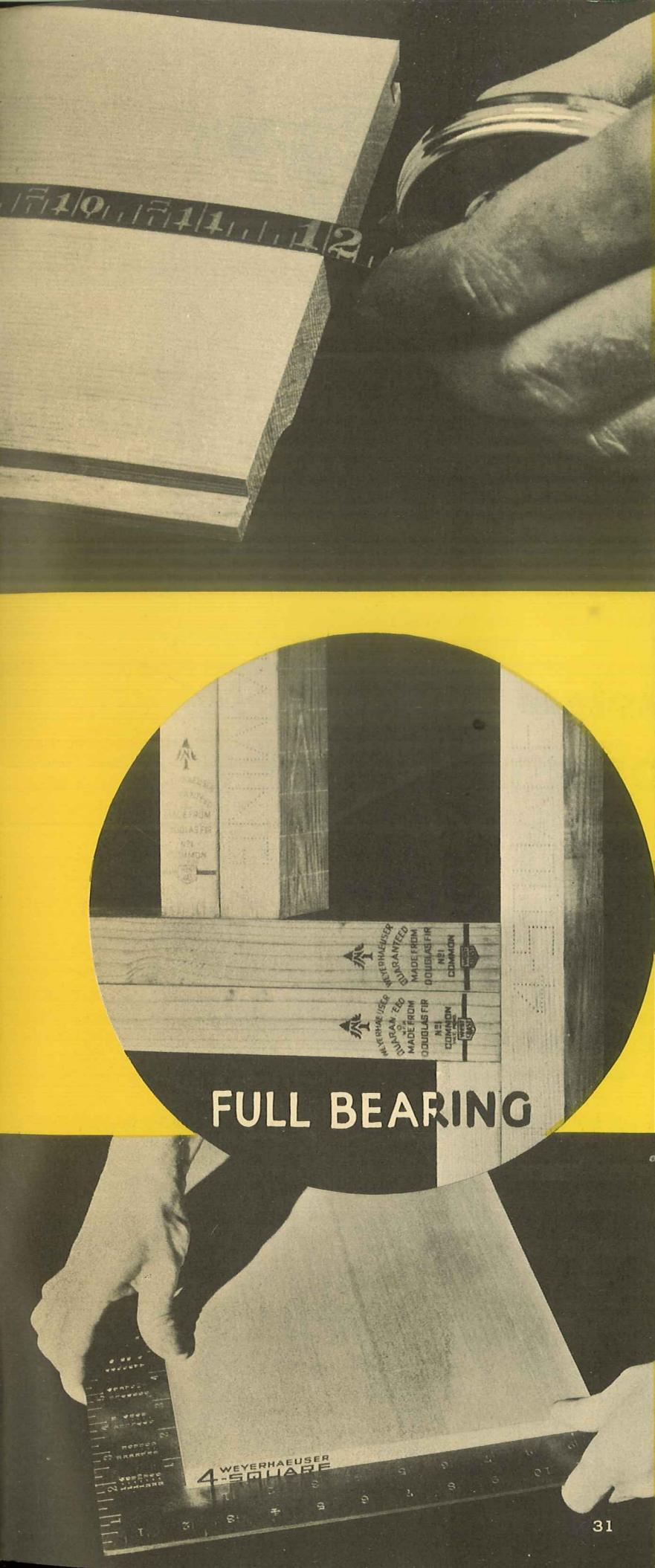
When the lumber is used, he is assured also of getting a better than ordinary job at no greater cost and perhaps at a greater saving. This is due to the precision improvements in Weyerhaeuser 4-Square lumber which give better and speedier construction, often at lower cost.

On the opposite page some of the less technical 4-Square improvements are illustrated. If you are interested in knowing how these and other 4-Square advances in lumber making are of direct benefit to the buyer, your 4-Square retail lumber dealer will be glad to give you a practical demonstration. If you feel that the technical side of lumber and construction are out of your scope, you may in perfect confidence have faith in the maker's guarantee mark and the word of the 4-Square dealer.

In the seven years 4-Square lumber has been on the market, it has been used in all types of construction for all kinds of buildings. Despite the fact that for five years it was sold at a higher price than ordinary lumber, the sales of 4-Square steadily increased. It is widely known, widely used.

When you repair or remodel, your desires and purpose are to put your home in the shape that it was (or you hoped it would be) when new. 4-Square lumber will help you do this at the lowest possible cost. On your 4-Square dealer's recommendations you will get the right wood for each use.

Your 4-Square lumber dealer is interested not only in seeing that you are wisely counseled in the choice of woods, but also in the selection of a reliable contractor who will see that this improved lumber is rightly used.



FULL BEARING

Exact Lengths. Every piece of Weyerhaeuser 4-SQUARE lumber is cut to exact standard length at the mill. This saves cutting time on the job and reduces waste.

Tight Joints. 4-SQUARE lumber makes tight, almost imperceptible joints without hand trimming on the job.

"TIGHT JOINTS"

Full Bearing. The square smooth ends of 4-SQUARE framing lumber insure full bearing of members and a rigid job.

WEYERHAEUSER
4-SQUARE

WEYERHAEUSER
4-SQUARE

SMOOTH ENDS

Smooth Ends. A comparison of the ends of 4-SQUARE boards with those of ordinary lumber shows instantly why 4-SQUARE is ready for the job without retrimming.

Square Ends. (at left) Weyerhaeuser 4-SQUARE lumber is retrimmed at the mill on both ends so that they are exactly square and ready for the finest construction.

WEYERHAEUSER
SALES COMPANY
Saint Paul, Minnesota



A Complete Service for HOME OWNERS

The 4-SQUARE Lumber Dealer is prepared to render five services for owners who wish to repair and renew their homes:

- 1 He will put you in touch with an experienced builder who will furnish you with an impartial and complete inspection of your home and a written report of its condition.
- 2 He will put you in touch with an experienced architect and designer provided there is one in your locality. If not, he will see that you receive the best designing service available, if it is required in remodeling work.
- 3 The 4-Square dealer will furnish, without charge, an estimate of costs covering needed repairs or remodeling. He will help you work out a budget of repairs and modernization so that you may accomplish your aims and needs within your income.
- 4 He will help you secure necessary financing so that you will be able to pay for the work out of income.
- 5 He is pledged to give you impartial advice on the selection of materials for any work you may contemplate. His advice may save you many dollars through insuring the right materials correctly used for your individual needs.

In closing this book we should like to make one recommendation to present or prospective home owners: Consult your local 4-Square Lumber Dealer. Look for his sign. It is a sign of true helpfulness and impartial, practical advice.

